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Address of Dr. J. M. Toner.

CELEBRATION

OF THE

· · BEGINNING · ·

· · · OF THE · · ·

SECOND CENTURY

OF THE

American Patent System

AT

WASHINGTON CITY, D. C.

APRIL 8, 9, 10, 1891.

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GENERAL WASHINGTON AS AN INVENTOR AND PROMOTER OF THE USEFUL ARTS.

AN ADDRESS DELIVERED AT MOUNT VERNON, APRIL 10, 1891, BY J. M^r TONER, M. D., ON THE OCCASION OF THE VISIT OF THE OFFICERS AND MEMBERS OF THE PATENT CENTENNIAL CELEBRATION.

It is fitting that on an occasion like the present, which reviews a past and forecasts a coming century, the friends of the great American Patent System should visit the tomb of Washington. For where rest the ashes, hovers, methinks, something of the spirit of the man whose genius and valor led the thirteen dependent American colonies¹ to independence; and whose influence, a century ago, formed them into one united Federal Government under a written constitution of exceeding wisdom, of which he was one of the principal authors, and under which our country, our patent system and our mechanical inventions have made such marvelous progress.

If it cannot be claimed that Washington originated the idea of recognizing property in inventions, he was, without doubt, the chief exponent of the views and sentiments which brought together the convention of delegates from the several States to consider their future well-being and to form a more perfect Union.²

¹ New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia.

² Washington, from his position at the head of the army throughout the war for independence, and his frequent correspondence with the Governors of the States as well as with many of the more influential citizens of the several States, in the interest of the army and to secure supplies for the soldiers, was led to a more intimate knowledge of the feeling of the people, and to see the weakness of the confederacy more clearly than any other man of his day. Its want of cohesive as well as want of coercive power had, to his mind, demonstrated its defects for national purposes. After peace was restored its want of power to regulate commerce—foreign and domestic; to make treaties, and to provide for

By a unanimous desire of the convention General Washington was called upon to preside over the meeting. Through the protracted and careful deliberations of this equal-rights and liberty-loving conclave of statesmen was evolved our written Constitution which has welded the United States into a nation, and which has so admirably served us for a century.³ This,

the payment of debts contracted by the confederacy, was notorious and created great discontent. It was becoming evident to thinking men that an alarming crisis was near unless some effectual remedy could be devised. Washington's sentiments were often freely and strongly expressed upon the subject. "That we have it in our power," said he, "to become one of the most respectable nations upon earth, admits, in my humble opinion, of no doubt, if we would but pursue a wise, just and liberal policy towards one another, and keep good faith with the rest of the world. That our resources are ample and increasing, none can deny; but while they are grudgingly applied, or not applied at all, we give a vital stab to public faith, and shall sink, in the eyes of Europe, into contempt. It has long been a speculative question among philosophers and wise men whether foreign commerce is of real advantage to any country; that is, whether the luxury, effeminacy and corruptions which are introduced along with it are counterbalanced by the conveniences and wealth which it brings. But the decision of this question is of very little importance to us. We have abundant reason to be convinced that the spirit of trade which pervades these states is not to be restrained. It behooves us, then, to establish just principles, and this cannot, any more than other matters of national concern, be done by thirteen heads differently constructed and organized. The necessity, therefore, of a controlling power is obvious, and why it should be withheld is beyond my comprehension."

The union, as at first organized, was fast losing respect, as it did not meet the exigencies or fulfill its purposes; and chaos was inevitable, unless reform was speedily effected. The mode of doing this engaged Washington's attention, and to him more than to any other man are we indebted for the Constitution which has united the States as one great union.

³ Sparks, in commenting upon this period of Washington's life and his part in the evolution of the Constitution, says: "He did not go to the convention unprepared for the great work there to be undertaken. His knowledge of the institutions of his own country and of its political forms, both in their general character and minute and affiliated relations, gained by inquiry and long experience, was probably as complete as that of any other man. But he was not satisfied with this alone. He read the history and examined the principles of the ancient and modern confederacies. There is a paper in his handwriting which contains an abstract of each, and in which are noted, in a methodical order, their

our *magna charta*, may be claimed as one of the most original and beneficent inventions in the art of government ever devised to secure to a people liberty, regulated by law, with equal justice to all.⁴

chief characteristics, the kinds of authority they possessed, their modes of operation and their defects. The confederacies analyzed in this paper are the Lycian, Amphictyonic, Achæan, Helvetic, Belgic and Germanic. He also read the standard works on general politics and the science of government, abridging parts of them, according to his usual practice, that he might impress the essential points more deeply on his mind. He was apprehensive that the delegates might come together fettered with instructions which would embarrass and retard, if not defeat the salutary end proposed. 'My wish is,' said he, 'that the convention may adopt no temporizing expedients, but probe the defects of the constitution to the bottom and provide a radical cure, whether they are agreed to or not. A conduct of this kind will stamp wisdom and dignity on their proceedings, and hold up a light which sooner or later will have its influence.' Such were the preparations and such the sentiments with which Washington went to the convention." (Sparks' Washington, vol. I, p. 434.)

⁴ The attention which the Continental Congress, in the Declaration of Independence and the notable occurrences of the Revolution, merited and received from historians, biographers and painters, has been so absorbing as in a measure to obscure or cause to be overlooked the history and *personnel* of the equally important convention of 1787, which drafted the Constitution of the United States. The claims of these statesmen to the grateful remembrance of posterity, if judged from a proper estimate of the happy Constitution they formulated, rest on a broad, just and honorable basis. The beneficent results flowing from their judicious labors have proved of the highest importance to America and the science of government everywhere. Indeed, it required the constitutional and indissoluble union of the States, devised by this convention, to render the Declaration of Independence of practical value by the creation of a National Government, preserving at the same time the autonomy of the States. And yet, strange as it may seem, the names of the seventy-three delegates appointed to the convention, or even the thirty-nine members who signed this precious document, are to a great extent unfamiliar to the public. Properly enough the names and the portraits of the signers of the Declaration of Independence are known to nearly every person, because they have been treated in a popular manner by artists and historians, and placed before an admiring public. The same and even greater respect is due to the framers of the Constitution. The neglect of the *personnel* of the constitutional convention, as I apprehend, is accidental rather than intentional; and is, at least, undeserved, I am confident all will admit. This work has stood the test of a century and has proved

It is not certain who introduced the proposition regarding Patents and Copyrights; but, considering the *personnel* of the convention, it might have originated with either Washington or Franklin, and was certain of an earnest support from both.

This was the first assembly of law-makers in the history of the world to reduce this conception to a practical formula, or make it a fundamental principle that inventors and authors have rights in their inventions which should be recognized and protected, for a limited time at least, by law. This conclusion they embodied in the Constitution of the United States.⁵

The rise and development of the American Patent System and the immense influence that it and the Patent Office, as a repository of official records and inventions, have had in promoting improvements, not only in our own country but also throughout the world, you have heard from other and abler

to be so nearly perfect as a charter of human rights as to create in the minds of some the belief that it has many of the qualities of an inspired instrument. It is to be hoped that some capable writer will produce a good, popular, illustrated history and summary of the principles of the Federal Constitution as crystalized by its authors, with the portraits and biographies of each of the members, so as to make them as familiar as household words to the people of the United States. An acceptable picture of the convention in session might, with great propriety, be extensively used to the same end as an object lesson by the Government of the United States on its legal documents, coins, medals, greenbacks, letter-heads, etc. This highly interesting historical convention sat in the council chamber in the State House in Philadelphia, the same from which emanated the immortal Declaration of Independence. George Washington filled the chair and directed the deliberations of the body. His seat was placed beneath the carved coat of arms of the State of Pennsylvania which ornamented a high panel in the rear. The venerable Dr. Franklin, then in his 83d year and an invalid, but with vigorous intellect, was carried to and from the convention in his Sedan chair which he brought with him from Europe. His arm-chair was placed on the left of the President near the bar. Judge James Wilson sat near the bar on his left. The other members disposed of themselves as they found it convenient.

⁵ The following is the clause in the Constitution of the United States which secures the rights of inventors and authors: "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors exclusive Right to their respective Writings and Discoveries."

speakers. Here, at Mount Vernon, the duty has been assigned to me, near the close of this brilliant and, I trust, profitable Patent Centennial, to speak to you of the great Washington as an inventor and promoter of improvements in the arts.

In compliance with this complimentary assignment, I shall venture to claim your attention for only a brief period; not but that much could be said confirmatory of the fact that General Washington, who owned these broad acres, enjoyed this magnificent prospect, and for half a century dispensed a most bountiful hospitality in this revered mansion, was ever on the alert for bettering man's condition in life through education, and by improvements in all kinds of productive machinery and labor-saving devices.

While it may not be claimed that George Washington is descended from a line of inventors, sages or heroes, history confirms the fact that he sprung from an intelligent, enterprising, courageous, self-reliant, truth-and-labor-loving, God-fearing stock, who were in their day and generation leading citizens in the community in which they lived. The instances in which Washington gave encouragement to new inventions are numerous, and the fact is beyond question that he invariably provided the best machinery for his mills and farms, and everything considered, for all the industries under his control, as is testified in many letters.⁶ He also had a kind word of encou-

⁶ The following letter to a correspondent, to which Sparks adds a note, in the following words, vol. x, p. 68: "The Baron de Poellnitz had a farm in the neighborhood of New York, where he tried experiments in agriculture. He also wrote a pamphlet on the subject, and was the inventor of various agricultural machines and implements, particularly a threshing machine and the horse-hoe."

NEW YORK, 29 Dec., 1789.

SIR: I have received your letter of the 26th and given such attention to the manuscript which accompanied it, as my obligations to public duties would permit. I shall always be happy to see experiments in agricultural machines, which can be brought into general use. Of those in your possession I was not able to form a decided judgment, except in the instance of the horse-hoe. Of the utility of that instrument I was fully convinced. I propose to take some farther occasion of seeing the manner in which the threshing machine operates, when you shall let me know it is in readiness for the purpose; and in the meantime,

I am with due consideration, etc.,

G^o WASHINGTON

agement for those working to the end of devising new methods and improved implements in any of the arts. This spirit, along with his official duty to see proper laws enacted by Congress under the authority of the Constitution which he had assisted in drafting, led him in his first annual message to commend measures to foster new and useful inventions and⁷ doubtless gave him special pleasure in signing the first patent law enacted under the government of the United States,⁸ as well as in attaching his name to the first patent issued shortly after⁹ under an act of Congress.

Just one century ago, George Washington, then President of the United States, was for a week at Mount Vernon. He was then setting out on a tour through the Southern States, having made a similar semi-official one of the Eastern States in October and November, 1789. His Diary for this date, a century ago, is as follows :

" *Thursday, 7th April, 1791.*—Recommenced my journey with Horses apparently much refreshed and in good spirits.

" In attempting to cross the ferry at Colchester with the four Horses hitched to the Chariot by the neglect of the person

He made many enquiries by letters to his correspondents relative to the practical efficacy of threshing machines, which had been experimented with both in Europe and America. In a letter to Governor Henry Lee of Virginia, October 16, 1793, he speaks hopefully of a threshing machine devised by Col. Taliaferro, but which he had not seen, but had heard good reports of its performance. He insists the machine must be simple in construction. " The model," he says, " brought over by the English farmers may also be a good one, but the utility of it among careless negroes and ignorant overseers will depend absolutely upon the simplicity of the construction, for if there is anything complex in the machinery it will be no longer in use than a mushroom is in existence."

⁷ "The advancement of Agriculture, Commerce and manufacture by all proper means will not, I trust, need recommendation; but I cannot forbear intimating to you the expediency of giving effectual encouragement as well to the introduction of new and useful inventions from abroad as to the exertions of skill and genius in producing them at home, and of facilitating the intercourse between the distant parts of our Country by a due attention to the Post-Office and Post-Road."—*Washington's first annual message, January 8, 1790.*

⁸ April 10, 1790.

⁹ July 30, 1790.

who stood before them, one of the leaders got overboard when the boat was in swimming water and 50 yards from the shore—with much difficulty he escaped drowning before he could be disengaged—His struggling frightened the others in such a manner that one after another and in quick succession they all got overboard harnessed & fastened as they were and with the utmost difficulty they were saved & the Carriage escaped been dragged after them, as the whole of it happened in swimming water & at a distance from the shore—Providentially—indeed miraculously—by the exertions of people who went off in Boats & jumped into the River as soon as the Batteau was forced into wading water—no damage was sustained by the horses, Carriage or harness.

"Proceeded to Dumfries where I dined—after which I visited & drank Tea with my Niece, M^rs Thos Lee.

"*Friday, 8th.*—Set out about 6 o'clock—breakfasted at Stafford Court House—and dined and lodged at my Sister Lewis's in Fredericksburgh.

"*Saturday, 9th.*—Dined at an entertainment given by the Citizens of the town. Received and answered an address from the Corporation [of Fredericksburgh].

"Was informed by M^r Jno Lewis, who had not long since been in Richmond, that M^r Patrick Henry had avowed his interest in the Yazoo Company; and made him a tender of admission into it wh^b he declined—but asking, if the Company did not expect the Settlement of the lands would be disagreeable to the Indians was answered by M^r Henry that the C^o intended to apply to Congress for protection—which if not granted they would have recourse to their own means to protect the settlement—That General Scott had a certain quantity of Land (I think 40,000 acres) in the Company's grant & was to have the command of the force which was to make the establishment—and moreover—that General Muhlenburg had offered £1000 for a certain part of the grant—the quantity I do not recollect if it was mentioned to me.

"*Sunday, 10th.*—Left Fredericksburgh about 6 o'clock—myself, Maj^r Jackson and one Servant breakfasted at General Spotswoods—the rest of my Servants continued on to Todd's Ordinary where they also breakfasted. Dined at the Bowling Green—and lodged at Kenner's Tavern 14 miles farther—in all 35 m.

Before entering upon the main subject of this discourse, I shall first endeavor to recall a few of the more notable traits of character in the boyhood and early manhood of him whose life and achievements make these ancestral possessions on the Potomac, the most noted and dearly loved homestead in the world.¹⁰ A consensus of the most careful studies of the life of George Washington from his childhood, represents him as mentally and physically precocious—attaining almost his full stature in his 19th year, but throughout his youth, diffident almost to bashfulness—yet men of experience marveled at the maturity of his judgment and his knowledge of the details of business in general and public affairs. He seems to have had

¹⁰ The original patent for the land embraced in the Mount Vernon tract was granted March 1st, 1674, by Thomas (Lord) Culpeper to Col. Nicholas Spencer and Lieut.-Col. John Washington for 5,000 Acres, located at the mouth of Little Hunting creek on the Potomac. They made an equal division, and the part falling to John Washington descended by bequest without subdivision until it was devised in parcels by Gen'l Washington to his heirs. Mount Vernon has never known other owners than Washingtons until 200 acres of it, including the tomb and mansion, came into the possession of the "Mount Vernon Ladies' Association," which has secured the tomb and home of Washington for all time for the people—as a memento of the founder of the American Republic.

TEXT OF THE ORIGINAL PATENT.

To all to whom these p^resents shall Come the Owners and propriet^{rs} of all that tract and Terrtory of land in Virginia in America mentioned in his Maties Letters Pattent under the Broad Seale of England bearing date the Eighth day of May in the Nine and twentieth yeare of his . . . Maties Raigne send Greeting in our Lord God Everlasting KNOWE Yee that by Virtue thereof and for and in Consideration of the yearlye Rent and Agreem^{ts} hereafter Expressed and Reserved Wee have Bargained Sold Released and Confirmed and doe by these p^resents under our Co^mmon Seal Bargaine Sell Release and Confirme unto Coll: Nicholas Spucer and Le^t Coll: John Washington of Virginia in America fife thousand Acres of Land Scituate Lying and being within the said Terrtory in the County of Stafford in the ffreshes of Pottomeeke River and neere oppostitt to Piscatoway Indian Towne in Mariland and neere the Land of Cap^t: Giles Brown on the North side, and neere the Land Surveyd for M^r W^m Grein M^r W^m Dudley and others on the South side, being a necke of Land bounded betwixt two Creeks and the Maine River, on the East side & to by the said Maine River of Pottomeeke, on the North & to by a Creeke Called by the English Little Hunting Creeke and the maine Branch thereof on the south & to by a Creeke named and Called by the Indians Epsewasson Creeke and the maine Branch thereof which Creeke devides this Land of Grein and Dudley

no frivolous or idle boy-life. When a lad he was noted for his punctual attendance at school, for his application to study, and his ability to master mathematical problems. He was strong and agile in play, and a leader in all the more difficult feats and sports of climbing, leaping, pitching, throwing, etc., indulged in by his playmates. A sense of exact justice was

and others on the west side by a right Lyne drawne from the Branches of the afore
said Epsewasson and Little Hunting Creeke including the aforesaid Quantity,
together with all Trees profits Comodityes Emolumts and Additions
whatsoever therein belonging All manner of Mines of Gold, Silver and Copper
therein only excepted and foreprised To Have and to Hold all and singular the
p^rmises (except before excepted) to the said Coll: Nicholas Spencer and L^t: Coll:
John Washington their heires and Assignes forever Yieldinge and paying therefore
yearly and every yeare the Rent of ffoure shillings of Lawfull money of England
for every Hundred Acres and soe proportionably for a Bigger or Lesser Quantity to
the said propriet^{rs} our heires and Assignes forever upon the ffirst day of November
Com^r only Called the feast of all s^{ts}; at the Court house of the County where the
said Lands are situate, or such other place within our said Terrytory as wee or
any one or either of us shall dereet and appoynt from tyme to tyme The first pay-
mt^r threof to bee made on the first day of November now next ensuing Provided
allwayes that if the said Coll: Nicholas Spencer and L^t: Coll: John Washington their
heires and Assignes doe yearly and every yeare betweene the feast day of st.
Michaell the Archangell and the said ffirst day of November pay or Cause to bee
paid unto ns the said Propriet^{rs} our heires and Assignes forever the yearly Rent
of two shillings sterlⁱng in specie for every Hundred Acres and soe proportionably
for a Bigger or Lesser Quantity that it shal bee taken and accepted by us the said
propriet^{rs} our heires and Assignes in full satisfaccon of the ffoure shillings above
mentioned Provided alsoe that if the said Coll: Nicholas Spencer and L^t: Coll: John
Washington their heires and Assignes shall not Plant or Seate the said Lands or
Cause the same to bee planted or Seated within the terme of three yeares next
ensuing the date hereof; that then this Grant & everything herein Contayned
shall bee void and Null to all Intent^s & purposes whatsoever as if the same had
never beeene made And lastly it is Agreed that this Grant bee Registered in due
forme in Virginia aforesaid by the said Coll: Spencer and L^t: Coll: John Wash-
ington or their Assignes before the ffirst day of November now next ensuing In
Witnessse whereof wee y^e S^d Propriet^{rs} have here onto fixed our Com^r on seale
and Caused the same to bee Countersigned by one or more of us in the Naime of
the Rest this ffirst day of March In the 27th yeare of the Raigne of our Soveraigne
Lord King Charles y^e second & Anno Domⁱ 1674.

THO CULPEPER

It is probable that the first purchase of real estate made by George Washington was that of a tract of unseated land embracing 550 acres, which he selected on the Bullskin early in his visits to the Shenandoah Valley. He received a deed for this land in Frederick County, Va., from Lord Fairfax, the original proprietor, which bears date October 25th, 1750.

developed in him in his childhood which was recognized by his school-fellows, who, by common consent, on occasions of dispute, selected him to act as umpire, and unreservedly acquiesced in his decisions. This trait of weighing evidences and reaching justice he had, to an eminent degree, through life.

Among the early notable performances of Washington, which have come down to us, is his formula of maxims or "Rules of Civility and Decent Behaviour in Company and Conversation," the ground-work of which was probably derived, through Hawkins's translation, from the original French. The maxims, as recast, he recorded in his copy-book in 1745, which, with other school exercises, is preserved in the Department of State at Washington. These rules do honor alike to the head and heart of him who had the genius to adopt and improve them ; and though Washington entered no claim to originality, they would to-day entitle him to a copyright which has actually been granted to two aspiring editors¹¹ who have recently published editions of them.

The consummate control which Washington habitually maintained over his feelings, so that judgment might be his guide, his never-flagging industry and strict attention to duty, together with his most inflexible principles of justice, enabled him as nothing else could to deport himself with undeviating propriety and dignity on every occasion, and made him the great leader he was.

An example which illustrates the early tastes and accomplishments of Washington is found in a few plots of surveys and topographical sketches made of the Potomac River and Little Hunting Creek, here at Mount Vernon, as exercises in surveying while visiting his half-brother, Major Lawrence Washington, in 1747, which have happily escaped the destructive hand of time, and may be found in the Department of State.

The practical acquirements, the disciplined habits, the energetic and intelligent application to business affairs, secured for George Washington the patronage of Lord Fairfax, the proprietor of the Northern Neck of Virginia, who had met him

¹¹ The Rev. Moneure D. Conway and Dr. J. M. Toner.

repeatedly at "Belvoir" and Mount Vernon, and who, seeing from his work that he was a youth of unusual ability, engaged him as a surveyor and factor in his land office, which was then at "Belvoir."

Washington set out from "Belvoir" upon this, his first remunerated employment, when he was just one month over sixteen years of age, to associate with practical men of business in a business way and to discharge important and responsible duties. He kept a diary of this "journey over the mountains," as he termed it, and of the surveys he then made, which is full of interest and which is at present in course of publication. In this business, he acquitted himself to the entire satisfaction of Lord Fairfax, who found it to his interest to secure young Washington's services on a more permanent and extended scale in connection with the surveying and settlement of his lands in the Valley of Virginia, then in much demand by actual settlers. This congenial and profitable employment was, however, terminated in the fall of 1751 by the failure of Major Lawrence Washington's health, and the necessity of his seeking a milder climate in the island of Barbadoes, on the voyage to which place his brother George was induced to accompany him. The attachment of these brothers to each other had been especially strong from childhood, so that George did not hesitate, for a moment, to sacrifice a lucrative position to discharge a fraternal duty. This was the only occasion on which George Washington was ever beyond the territory of his own country. During this journey, as was his custom, he kept a diary which is replete with statesmanlike observations. This journal is also in the hands of a publisher.

During the summer of 1751, Major Lawrence Washington resigned the office of Adjutant Inspector of the Militia of Virginia with the rank of major, to which position he had his brother George appointed, with the pay of one hundred and fifty pounds a year. This was George Washington's first military commission. With his usual assiduity, he at once set to work to inform himself of his official duties, and to acquire, by study and drill, the knowledge necessary for their proper discharge. To this end he employed a practical drill-master

and teacher of the sword exercise, and speedily mastered both manuals.

When, in 1753, the Governor of Virginia wanted a man of address, courage and perseverance to execute the difficult and hazardous task of penetrating for several hundred miles into a wilderness which sheltered many hostile savages and the armed forces of an unfriendly foreign nation, all voices counseled the appointment of Major George Washington to this embassy. I refer, of course, to the occasion of Governor Dinwiddie's serving a notice upon the Commandant of the French forces at Fort *La Bœuf* that they were trespassing upon the territory of His Majesty, the King of Great Britain, and warning them to depart.¹² Washington accepted the mission and set out to execute it the same day, October 31st, 1753. It should be borne in mind that, at that time, the whole region about the head-waters of the Ohio, and, indeed, nearly all the territory west of the Blue Ridge in Virginia and Pennsylvania was nearly an unbroken forest, the happy hunting grounds of hostile Indians. The French, it is true, had made a few but no very considerable settlements in the great Mississippi Valley, and claimed the territory by right of discovery. This mission, considering the time at which it was undertaken and the difficulties that had to be overcome, must be placed in the category of heroic enterprises, while the political effects flowing therefrom are among the most important in the history of our country. Major Washington performed this duty with such promptness and good judgment, as to receive the thanks of the Governor of Virginia and his

¹² The estimation in which Major George Washington was held by Governor Dinwiddie then and for some time previous, may be shown by his letter to the Lords of Trade, written November 17th, 1753, in which the Governor said: "I have sent out a gentleman of distinction to the French Camp on the Ohio with my letter to the Commanding Officer, to know the reasons and by what authority he invades His Majesty of Great Britain's territory in the time of a solid peace subsisting between the two Crowns."

And in another despatch of the same date the Governor of Virginia writes: "I have commissioned Mr. Washington, a Major and one of the Adjutants of the Militia of this Dominion, to proceed to the French camp, etc." (Colonial Office Records of Virginia, 1750—1780).

Council. He kept notes of his journey from the time he left Williamsburg until he returned, with which, when referred to by Washington to refresh his memory, the Governor was so much pleased that he requested their author to write them out as a Report, which he did in one day, and they were immediately printed by public authority. The modesty of Washington throughout this journal is as conspicuous and characteristic of the man and his heroism as his diplomacy with the Indians and the French officers was admirable. The pretensions of the French, as set forth by the statements of their own officers and recorded in this journal, brought Major Washington's name into prominence in all the discussions in Great Britain, France and the several American Provinces relative to this trans-Alleghany territory. His reputation for sagacity, courage and diplomatic ability had thus acquired international celebrity. Henceforth he was a factor in the politics and policy of the nations which were engaged in maintaining colonial settlements in North America.

Washington declined the chief command of the armed expedition immediately set on foot by Governor Dinwiddie to build a fort or forts at the forks of the Ohio, as recommended in his journal or report to the Governor, but accepted the position of second to the Commander-in-Chief. In this service, as Lieutenant-Colonel, he won the distinction of having led the first body of armed American troops across the Alleghany mountains to reclaim the great West from the forest, the savage and the French. The death of the Commander-in-Chief, Col. Joshua Fry, occurred at what is now Cumberland, Md., May 31st, 1754, while he was *en route* to assume active command, whereupon the whole conduct of the expedition devolved upon Col. Washington, who was, at the time, at the head of a detachment of the Virginia Regiment on the west side of the Alleghany mountains. As is known to those acquainted with the early history of our country, the battle of the Great Meadows and the capitulation of Fort Necessity terminated this campaign to the discomfort of Virginia, the mortification of Washington, and the great disappointment of Governor Dinwiddie. Washington resigned from the service in the fall of 1754, on account of an army regulation which

denied rank to Colonial officers when serving in commands along with British officers, the latter holding their commissions from the King.¹³

The failure of the Virginia troops to establish forts west of the Alleghany mountains, led the British Ministry to send General Braddock to America in 1755, with two regiments of regulars, which were largely reinforced by colonial troops, but with no colonial officer of higher rank than a captain, to drive

¹³ Military rank in the Colonies at that time was not founded on either justice or sound policy, and was, therefore, at times the occasion of great irritation between Colonial and British officers. Fort Cumberland, for a considerable period the most advanced military post to the westward, while on the border of Virginia, was actually in Maryland, and, after Braddock's defeat, was garrisoned by thirty men under Capt. Dagworthy, under a commission from the Governor of Maryland. The captain had served in the Braddock Expedition, under a commission from the King, and, whenever opportunity offered, would claim this old commission to entitle him to rank any officer holding a commission from one of the Colonial Governors. When Washington had occasion to be at Fort Cumberland, this doughty captain would place himself upon this former commission and pay no attention to the orders of Col. Washington.

This was not only exasperating, but subversive of discipline and efficiency in the service, which Washington was determined to correct or to retire from the service. He accordingly, with the approval of all the officers of the Virginia forces, got the consent of Governor Dinwiddie to refer the whole matter of rank, as it affected the service in America, to Gen. Shirley, at the time Commander-in-Chief of His Majesty's armies in the American Colonies. By request of the Virginia officers, the petition was to be presented to Gen. Shirley by Col. Washington in person.

Accordingly, Washington with his aide-de-camp, Capt. George Mercer set out from Williamsburg for Boston February 4th, 1756, to present their petition on the question of rank. Washington was well received by Gen. Shirley, who examined into the matter on its merits, and responded by giving a pointed order that Capt. Dagworthy should be subject to Col. Washington's orders.

But this, while it corrected the immediate controversy, did not solve the real difficulty which existed in the army regulations, the amendment of which required the action of the Ministry. The subject, therefore, continued to be discussed, and petitions continued to be sent by other Colonial officers to the Home Government, representing the injustice of the rule as applied to the military service in America. William Pitt, while Secretary of State, in 1758, in a spirit of conciliation towards the Colonies, procured a modification of the regulations concerning the rank of British and Colonial officers on duty in the same service, putting them

the French from Fort Duquesne, and hold that position at the head of the Ohio.¹⁴ The eminently valuable service which Col. Washington performed while a volunteer aide in this expedition (for he held no command) in extricating Braddock's shattered forces after the engagement and their defeat on the Monongahela, July 9th, 1755, is a part of the history of our

in a position much nearer equality, but without fully reaching it. While this allayed somewhat the complaint of the Provincials, it served, nevertheless, to annoy the regulars.

The army regulations were specific, and in the language following : "That all such as were commissioned by the King, or by his general Commander-in-Chief in North America, should take rank of all officers commissioned by the Governors of the respective Provinces. And further, that the general and field officers of the Provincial troops should have no rank when serving with the generals and field officers commissioned by the Crown; but that all captains and other inferior officers of the Royal troops shall take rank over Provincial officers of the same grade having older commissions."

It is almost inconceivable, but it is nevertheless true, that up to the campaign which drove the French out of their North American possessions not a Provincial colonel had ever been asked by any British officer to join in a council of war. The Provincial officers, therefore, even to colonels, knew no more than a sergeant what was to be done before their orders came. In the nature of things, the Colonial officers were much better acquainted with the topographical features of the country and the difficulties to be overcome, than any British officer, or a stranger, could possibly be, as well as with the methods of warfare peculiar to the Indians. Yet, these and other potent reasons, and the further fact that the Colonial officers were fighting on their own soil and for their own firesides, were totally disregarded. It was, therefore, not to be wondered at that Col. Washington's sense of justice rebelled at such a regulation.

¹⁴ E. D. Neill, quoting from Peyton's Reminiscences of General Braddock while at Williamsburg, Va., 1755, gives the following extract from a letter written to the General about this time, as follows :

"Is Mr. Washington among your acquaintances? If not, I must recommend you to embrace the first opportunity to form his friendship. He is about twenty-three years of age, with a countenance both mild and pleasant, promising both wit and judgment. He is of a comely and dignified demeanor, and at the same time displays much self-reliance and decision. He strikes me as being a young man of an extraordinary and exalted character, and is destined, I am of opinion, to make no inconsiderable figure in our country."

Mr. Neill says that Washington was at a dinner given to Gen. Braddock at Williamsburg, March 1755, by Gen. John St. Clair, his Quartermaster, just after his arrival in Virginia.—[*Washington Adapted for a Crisis—p. 7, by Edward D. Neill, D. D.*]

country. His conduct and bravery in the emergency met unqualified praise alike from British and Colonial officers and men. This disaster left the frontier of Virginia, Maryland and Pennsylvania, for a time, without any organized or adequate military protection, but speedily the praise bestowed upon Col. Washington for his generalship in the late engagement assumed the nature of a universal, popular demand to Gov. Dinwiddie for his appointment to a command of the Virginia troops for the protection of the frontier settlements. It was known to the Assembly, the Governor and his Council, that Washington had retired from the service solely on account of the military regulations discriminating in rank against Colonial officers. It was also known he would not again accept command unless his rank should be respected.¹⁵ As the corps about to be organized was to consist wholly of

¹⁵ Washington bore with dignity the slight the Governor perpetrated in reducing his command, which he knew at the time, would cause the Colonel to resign his commission. He had made great personal sacrifices to serve his country in the military line, but never received proper encouragement from Gov. Dinwiddie. The following extract from a letter to his brother Augustine, written August 2d, 1755, shortly after Gen. Braddock's defeat, shows both his courage and his sense of justice; he says: "I can nevertheless assure you, and others 'whom it may concern' (to borrow a phrase from Goverour Innes) that I am so little dispirited at what has happened, I am always ready, and always willing, to render my Country any Services that I am capable of but *never* upon the Terms I have done;—having suffered much in my private Fortune, besides impairing one of the best of constitutions.—

"I was employed to go a Journey in the Winter (when I believe, few or none would have undertaken it),—and what did I get by it?—My expences borne!—I then was appointed, with trifling Pay, to conduct a handfull of Men to the Ohio:—What did I get by that? Why, after putting myself to a considerable expence, in equipping and providing necessaries for the Campaign, I went out—was soundly beaten—lost them all! —came in and had my Commission taken from me, or, in other words, my command reduced, under pretence of an Order from Home!—I then went out a Volunteer with Gen. Braddock, and lost all my Horses and many other things. But being a voluntary act, I ought not to have mentioned this; nor should I have done it were it not to shew that I have been upon the losing order ever since I entered the service, which is now nearly two years. So that I think I cannot be blamed should I, if I leave my family again, endeavor to do it upon such terms as to prevent my suffering—to gain by it being the least of my expectations."

Virginia Provincial forces, no controversy, it was thought, could arise as to rank ; and with this understanding and an earnest desire on Washington's part to serve his country, he accepted the appointment. The Assembly promptly voted £40,000 to raise and equip troops. This was the largest sum Virginia had ever appropriated for this service.

Washington was commissioned by the Governor, August 14th, 1755, Colonel of the Virginia forces, to be immediately raised to build forts and protect the people on the frontier against the incursions of the Indians.¹⁶ He accepted the appointment and continued at the head of the Virginia forces until the French were, by the Forbes Expedition, in which Washington took a conspicuous and honorable part, obliged to abandon Fort Duquesne in the Fall of 1758. I have dwelt somewhat in detail upon this early period of Washington's life because these were the years in which he was acquiring military experience and ripening, by study and reflection, into the grandest military character and philosophic statesman the world has ever produced.

In July, 1758, while with his regiment in the field, he was elected from Frederick county to a seat in the House of Burgesses of Virginia. His favorite project, the driving of the French from Fort Duquesne, having now been accomplished, he felt at liberty to resign his command in the army ; which he did in December of this year.

Early in January, 1759, he was married, and in April, shortly after¹⁷ the adjournment of the Assembly, he brought

¹⁶ Washington's letter to his mother, at the time, on this subject fully represents his position, and is here given in full :

" TO MRS WASHINGTON,
Near Fredericksburgh,

HON^D MADAM—

" If it is in my power to avoid going to the Ohio again, I shall ; but if the command is pressed upon me, by the general voice of the country,—and offered upon such terms as cannot be objected against,—it would reflect dishonour upon me to refuse it ; and *that I am sure must or ought to give you greater uneasiness, than my going in an honorable command* ; for upon no other terms will I accept it—At present I have no proposals made to me, nor have I any advice of such an intention, except from present hands.

I am, D^r Madam, &c.,

MOUNT VERNON,
August 14th, 1755."

From draft and transcript in the Department of State.

his wife to Mount Vernon.¹⁷ It was not until after his retirement from the army and his marriage that Washington was able to give much personal attention to the management of his estate. His brother, John Augustine, in his absence, had looked after his servants and his plantations to the best of his ability.¹⁸

¹⁷ The following account of the personal appearance of Col. George Washington is given in a letter by Capt. George Mercer to a friend in England in 1760. This copy was taken by the writer, from a copy in the possession of Col. Lewis W. Washington, of "Bell-air," near Hall Town, Jefferson county, West Virginia, 1855:

"Although distrusting my ability to give an adequate account of the personal appearance of Col. George Washington, late Commander of the Virginia Provincial troops, I shall, as you request, attempt the portraiture. He may be described as being as straight as an Indian, measuring six feet two inches in his stockings, and weighing 175 pounds when he took his seat in the House of Burgesses in 1759. His frame is padded with well-developed muscles, indicating great strength. His bones and joints are large, as are his feet and hands. He is wide shouldered, but has not a deep or round chest; is neat waisted, but is broad across the hips, and has rather long legs and arms. His head is well shaped though not large, but is gracefully poised on a superb neck. A large and straight rather than a prominent nose; blue-gray penetrating eyes, which were widely separated and overhung by a heavy brow. His face is long rather than broad, with high round cheek bones, and terminates in a good firm chin. He has a clear though rather colorless pale skin, which burns with the sun. A pleasing, benevolent, though a commanding countenance, dark brown hair, which he wears in a cue. His mouth is large and generally firmly closed, but which from time to time discloses some defective teeth. His features are regular and placid, with all the muscles of his face under perfect control, though flexible and expressive of deep feeling when moved by emotions. In conversation he looks you full in the face, is deliberate, deferential and engaging. His voice is agreeable rather than strong. His demeanor at all times composed and dignified. His movements and gestures are graceful, his walk majestic, and he is a splendid horseman."

¹⁸ The estate of Mount Vernon, or about 4,000 acres of it, was bequeathed by General Washington to his nephew, Judge Bushrod Washington, son of his brother, John Augustine, in the following language: "Partly in consideration of an intimation to his deceased father, while we were both bachelors, and he had kindly undertaken to superintend my estate during my military services in the former war between Great Britain and France, that if I should fall therein Mount Vernon, then less extensive in domain than at present, should become his property." On Justice Washington's decease, without children, he left it to his nephew, John Augustine, who, by will, left it to his widow, who conveyed it to her son John Augustine, who sold two hundred acres including the mansion and the tomb to "The Ladies' Mount Vernon Association of the Union." To them the country owes a debt of gratitude for the excellent condition in which everything relating to the home of Washington is kept. Perhaps it is not too much to say ladies only could manage Mount Vernon so as to keep it free from politics, faction and peculation. Under their care it is annually growing in the affections of a grateful and patriotic people.

From his youth, Washington was in the habit of taking notes and making memorandums in pocket note-books of whatever interested him, especially when engaged in expeditions or when making experiments. These memorandums assumed in time, but perhaps unconsciously to their author, the character of diaries. Of those which have escaped destruction, some are preserved in the Department of State, others in private and public libraries, and all are held as highly-prized relics. Copies of all the Washington Diaries and Journals, known to exist, have been transcribed with literal exactness for the writer and are now in his possession.

In his Diary for 1760, Washington notes, very briefly, the events occurring at Mount Vernon, and especially matters relating to the management of his plantations. These memorandums, brief as they are, show that he was giving close attention to the improvement of his estates. His personal supervision was only interrupted by occasional visits to Williamsburg to attend the meetings of the Assembly. The following extract from his Diary, at this period, gives a good example, not only of his love of agriculture, but in especial manner shows his ingenuity and fertility of invention and desire to improve the implements of husbandry.

"Thursday, Mar. 6th. 1760—Fitted a two-eyed plow instead of a duck-bill plow, and with much difficulty made my chariot wheel-horse plow."

*"Wednesday, Mar. 19th.— * * * Peter (my smith) and I after several efforts to make a plow after a new model, partly of my own contriving, was feign to give it out, at least for the present."*

March 21st Washington records the fact that he had this day grafted 41 cherry-tree grafts, 12 magnum bonum plums and planted 4 nuts of the Mediterranean pine:—"The cherries and plum came from Col. Mason's, the nuts from M^r. Green's."

To the close of the month of March, the diary shows that he was daily grafting and planting fruit trees to the number of several hundred. For many years his diaries show that in the months of February and March he was much occupied in setting out and grafting choice fruit.

*"Monday, Mar. 24th. * * * In digging earth for the purpose of repairing my mill-dam, great quantities of marl*

or Fuller's earth appeared. In the evening, in a bed that had been prepared with a mixture of dung on Saturday last, I sowed choice Lucerne and Rye grass seeds, in the garden, to try their goodness, doing it in the following order. At the end next the corner were two rows of clover-seed; in the 3^d, 4th, 5th and 6th rye grass; the last row thinnest. Sowed 7th and 8th barley (to see if it would come up,) the last also thinnest sown; 9th, 10th, 11th, 12th Lucerne, the next thicker and so on to the last, w^{ch} was very thick."

"Wednesday, Mar. 26th. * * * Spent the greater part of the day in making a new plow of my own invention."

"Thursday, Mar. 27th. 1760. * * * Set my plow to work and found she answered very well in the lower pasture, w^{ch} I this day began plowing with the large bay mare and Rankin. * * * Agreed to give M^r W^m Triplet £18 to build me two houses in the front of my house (plastering them also) and running walls for palisades to them from the great house and from the great house to the wash-house and kitchen also.¹⁹

¹⁹ The Mansion House, during Lawrence Washington's life, stood by itself. When George became its possessor but little improvement in buildings was made until after his marriage, then a number of out-houses were added and the grounds and gardens brought under the supervision of the Colonel's aesthetical eye. For the purpose of systematic management, the Mount Vernon estate was divided into the Mansion House Farm, of 450 acres and large bounds of woodland; the River Farm, of 1,800 acres; the Union Farm, of 841 acres; the Dogue Run Farm, of 1,076 acres, and the Muddy Hole Farm of 886 acres—a domain of nearly 4,500 acres.

²⁰ The following memorandum, in General Washington's handwriting, is preserved among his miscellaneous papers in the Department of State, and gives the size and names of all of the detached buildings existing at Mount Vernon in 1799. The enumeration of windows and panes of glass in each of the houses would seem to have some relation to a tax levy:

"List of Houses at Mount Vernon, as taken by M^r Dulau (one of the Assessors), the 9th instant on the Premises;

Dwelling House 96 feet by 32, of Wood; 2 Stories high.

No. of Windows.	No. of Paynes in each.	Total.
6	18	108
6	12	72
3	12	36
8	15	120
1	62	62
2	16	32
6	18	108
9	12	108
1	10	10
2	18	36
3	12	36

"*Saturday, April 5.* * * * Made another plow, the same as my former, except that it has two eyes and the other one."

"*Monday, April 14th.* Fine warm day, wind so'ly, and clear till the even'g, when it clouded; no fish were to be catched to-day neither. Mixed my composts in a box with ten apartments in the following manner, viz. in N° 1 is three pecks of earth brought from below the hill out of the 46 acre field without any mixture. In N° 2 is two pecks of sand earth and one of marle taken out of the said field, which marle seem'd a little inclined to sand. 3 has 2 pecks of s^d earth and 1 of river side sand.

4 has a peck of Horse Dung.

5 has mud taken out of the creek.

6 has cow dung.

7 marle from the Gulleys on the hill side, w^{ch} seem'd to be purer than the other.

8 sheep dung.

9 Black mould taken out of the Pocoson on the creek side.

10 Clay got just below the garden.

All mixed with the same quantity and sort of earth in the most effective manner by reducing the whole to a tolerable degree of fineness and rubbing them well together on a cloth. In each of these divisions were planted three grains of wheat, 3 of oats, and as many of barley, all of equal distances in Rows and of equal depth done by a machine made for the purpose. The wheat rows are next the numbered side, the oats in the middle, and the barley on the side next the upper part of the garden. Two or three hours after sowing in this manner, and about an hour before sunset I watered them all equally alike with water

" Kitchen	+ { 40 by 20
Servants Hall	40 - 20
Gardners house	26 - 16
Store house	*16 - 16
Smoke house	20 - 16
Wash house	20 - 16
Coach house	84 - 36
Stable	16 - 16
Salt house	38 - 18
Spinning house	170 - 18
Negro Quarters } in one	within arch 12 - 12
Green house }	
Ice house	

Go WASHINGTON.

MOUNT VERNON,

13 March, 1799.

+ Measured since M^r Dulau took the account.

* This building is added to the Assessors Report."

that had been standing in a tub ab^t two hours exposed to the sun. * * * Got a new Harrow made of smaller and closer teethings for harrowing in grain—the other being more proper for preparing the ground for sowing."

May 1st Washington records that he inspected the grain planted in the ten boxes, each containing a different compost, as a test. These experiments show how close an observer he was, but they are too extended to be given in full here. He concludes, all things considered, that boxes 8 and 9 promised the most satisfactory results.

His ever watchful attention to the matter of labor-saving machinery in the interest of the poorly-paid and over-worked farmer is apparent throughout the life and writings of Washington. He made it a duty to read the standard works and annual publications on agriculture to obtain useful hints which might be of service on the Mount Vernon plantations.²⁰

Each one of the five plantations under the general supervision of the Mount Vernon estates, had its own overseer and its independent outfit or plant, with all the working people, stock and farm implements essential to its independent, economical management. A debit and credit account was kept by each overseer of the operations on his plantation—the

²⁰The following letter, the draft of which is preserved in the Department of State, is in point. The letter is here given in full, as it is only in part published by Sparks and by Ford :

To—ROBERT CARY Esq^R & CO

Merch^{ts} London

Gent^m

The Inclosed is a Copy of my last of the 22^d Ult^O. We have been curiously entertained of late with y^e description of an Engine lately constructed (I believe in Switzerland, and undergone some Improvements since in England) for taking up Trees by the Roots.—Among other things it is related that Trees of considerable Diameter are forced up by this Engine—that Six hands in working one of them will raise two or three hundred Trees in the space of a day—and that an Acre of Ground may be eased of the Trees and laid fit for Plowing in the same time.—How far these assertions have been amply realy realized by repeated experiment it is impossible for me at this distance to determine but if the Accounts are not greatly exaggerated such powerful assistance must be of vast utility in many parts of this wooden country where it is impossible for our Force (and labourers are not to be hired here) between the finishing of one Crop and preparations for another to clear Ground fast enough to afford the proper changes either in the planting or Farming business—The chief purport of this Letter therefore is to beg the favour of you Gentlemen to make minute enquiries into the Tryals that have been made by Order of the Society and if they have proved satisfactory to send me one of these Engines by the first Ship to this (Potomack) River.—If they are made of different sizes, I shoud prefer one of a middle size, capable of raising

work done, the crops produced, their market value, implements bought, stock increased, sold or on hand, general improvements made to buildings, ditching, clearing up of new land, etc. At the end of the year a balance was struck for each, and the difference set down to profit and loss.

At this period, nearly all the trades essential to serve the wants of an independent community, were represented and carried on at Mount Vernon; such as milling, distilling, tanning, blacksmithing, wagon-making, shoe-making, tailoring, spinning, weaving, knitting, carpentering, coopering, harness-making, brick-making and laying, stone-masons, etc. To a limited extent the facilities of these departments of labor were extended to his neighbors. There were also gunners to supply game, and men whose business it was to daily supply fresh fish, from the Potomac, for the table; while all surplus of perishable articles brought to the home house was promptly sent to the overseers of the several quarters. The gangs of skilled workmen and farm-hands composing the different departments of laborers on the Mount Vernon Estate consisted in part of slaves owned by General Washington;—dower negroes—slaves owned by Mrs. Washington; slaves hired from their masters by the year;²¹ transported convicts serving

a tree of 15 or 18 Inches Diameter.—The Costs I am pretty much a stranger to—15—20 & 25 Guineas have been spoke of but the Price (were it d'ble that) I shoud totally disregard provided the Engine is capable of performing what is related of it, and not of that complicated nature to be easily disordered, and rendered unfit for use, but constructed upon so plain, simple, and durable a Plan that the common Artificers of this Country may be able to set them to rights if any accidents shou'd happen to them. If you should send one be so good as to let me have with it the most ample directions for the effectual using of it, together with a model of its manner of operating.

Mrs. Washington woud take it as a favour, if you woud direct M^{rs} Shelby to send her a fashionable Summer Cloak & Hatt, a black Silk apron, 1 p^s of penny & 1 p^s of two penny Ribbon (white) and a pair of French bead Earings and Necklace—and I should be obliged to you for sending me a dozen and a half of Water Plates (Pewter with my Crest engraved)

I am Gentⁿ

Y^r Most Obed^t H^ble Serv^t

G^o WASHINGTON

Mount Vernon }
13th February 1764

By Capt^{ll}. Dawson—for London.

²¹ The following letter of Mrs. Corbin to Colonel Washington, found among the latter's papers, is illustrative of the business methods of the times and given in full—along with a receipt from Mr. Turberville.

ESSEX, Mch 31st, 1766.

Sir:—I am now favored with an opportunity of writing to you, to let you know that I shall be glad to be informed whether you will want the Bricklayer any longer. If you

out their sentences;²² persons voluntarily indenturing themselves for a sufficient time²³ to pay costs of transportation to

do, you may keep him on the same Terms; (but if not) shall be obliged if you will send him down as soon as his Year is up, because I have lately had an offer for him. As the distance is so great & good opportunities scarce, shall take it as a favor if you will send the Cash down by Mr. George Turberville who is the bearer of this & am Sir

Your most obt. Servt.

(Signed) LETTICE CORBIN.

N. B. I have a good Gardener to hire; if you want, may have him on the usual Terms for such—L. C.

To Col^r. George Washington of Mount Vernon, Va.

Received from Geo: Washington for the use of Mrs. Lettice Corbin, Twenty five pounds Virga Curr'y for the hire of the Negro Bricklayer George one year.

(Signed) GEO. TURBERVILLE.

April 9, 1766.

²² The following, found among Washington's papers, is a copy of a certificate and transfer in the case of a convict whose term of service was assigned to George Washington :

In Pursuance, and by virtue of Acts of Parliament made and provided for the more speedy and effectual Transportation of Felons and convicted Persons out of Great Britain, into his Majesty's Plantations in America, We do hereby assign unto George Washington Esq^r for Value received one Man-Servant named Thomas Wight being a Transport and within the said Statutes for the Term of Seven Years, the Time to commence from the Arrival of the Brig, Swift Captain George Straker in the Province of Maryland, it being the Twenty Sixth Day of February 1774 As witness our Hands this Twelfth day of March 1774.

WILL^M LUX & BOWLY.

²³ Copy of an Indenture for service as a mason for a term of years and a transfer to George Washington, in accordance with the law in force, at that period, in Virginia. Taken from among many manuscript indentures preserved among Washington's papers :

THIS INDENTURE Made the Thirty-first Day of January in the Fourteenth Year of the Reign of our Sovereign Lord George the third King of Great Britain, &c. And in the Year of our Lord One Thousand Seven Hundred and Seventy-four between Isaac Webb—Mason—of the City of Bristol of the one Part, and John Moorfield of the City of Bristol of the other Part, INNESSETIA, That the said Isaac Webb for the Consideration herein after-mentioned, hath, and by these Presents doth Covenant, Grant, and Agree to, and with the said John Moorfield his Executors and Assigns, That he the said Isaac Webb shall and will, as a faithful Covenant Servant, well and truly serve the said John Moorfield his Executors or Assigns, in the Plantation of Maryland beyond the Seas, for the space of four years, next ensuing his arrival in the said Plantation, in the Employment of a Mason And the said Isaac Webb doth hereby Covenant and Declare himself, now to be of the Age of Twenty-four Years and no Covenant or Contracted Servant to any other Person or Persons, And the said John Moorfield for himself his Executors or Assigns, in Consideration thereof do hereby Covenant, Promise and Agree to and with the said Isaac Webb Executors and Assigns, that he the said John Moorfield his Executors or Assigns, shall and will at his or their proper Costs and Charges, with what convenient Speed they may, carry, convey or cause to be carried and conveyed over into the said Plantation, the said Isaac Webb and from henceforth and during the said Voyage, and also during the said Term, shall and will at the like Cost and Charges, provide for and allow the said Isaac Webb

America ; others whose services for a stipulated period were sold by the shipping-masters to the highest bidder;²⁴ and mechanics, white and colored, engaged by the month or year, and generally upon a written contract. Washington's exactness in charging to each enterprise its just expense, is illustrated in his noting the number of days' labor it required of his carpenters and others in building his schooner at Mount Vernon, which we transfer in his own language from his diary.

" *Sep^t. 15, 1765*—To this day my carpenters had in all worked 82 days on my schooner.

all necessary Cloaths, Meat, Drivk, Washing, and Lodging, fit and convenient for him as Covenant Servants in Such Cases are usually provided for and allow'd.

And for the true Performance of the Premises, the said Parties to these Presents, bind themselves, their Executors and Administrators, the either to the other, in the Penal Sum of Ten Pounds Sterling, firmly by these Presents. *In witness whereof*, they have hereunto interchangeably set their Hands and Seals, the Day and Year above written.

JOHN MOORFIELD [SEAL]
his
ISAAC X WEBB [SEAL]
mark

Sealed and Delivered
in the Presence of
JOHN EVANS

I hereby Assign unto Col^o George Washington all my Right & title to the within Named Isaac Webb his time to begin from the Arrival of the Restoration Cap^t Thomas into the Province of Maryland it being the 22^d Day of March 1774 as witness my hand this 26th Day of March 1774.

JOHN MOORFIELD."

²⁴ The original of this indenture is preserved among the Washington papers in the Department of State, and is illustrative of old English law:

THIS INDENTURE Made the Eighth Day of July in the Year of our Lord God One Thousand Seven Hundred & Seventy two Between Andrew Judge of the one Party, and Alex^r Coldclough Merch^t of the other Party, *WITNESSETH*, That the said Andrew Judge doth hereby Covenant, Promise and Grant to and with the said Alex^r Coldclough his Executors, Administrators and Assigns, from the Day of the Date hereof until the first and next Arrival at Baltimore or any port in America and after, for and during the Term of Four Years, to serve in such Service and Employment as the said Alex^r Coldclough or his Assigns shall there employ him according to the Custom of that Country in the like Kind. *IN CONSIDERATION* whereof the said Alex^r Coldclough doth hereby Covenant and Grant to and with the said Andrew Judge to pay for his Passage, and to find and allow Meat, Drink, Apparel and Lodging, with other Necessaries during the said Term. And at the End of the said Term, to pay unto him the usual Allowance according to the Custom of the Country in the like Kind. *IN WITNESS* whereof the Parties abovementioned to these *INDENTURES* have interchangeably set their Hands and Seals, the Day and Year first above written.

his
ANDREW X JUDGE [SEAL]
Mark

Signed, Sealed and Delivered,
in Presence of { ^{MAYOR}
JNO M^cDERMOTT }

"*22^d* This week they worked 22 days upon her.

"*28th* This week my carpenters worked 22 days upon my schooner—and John Askew 3 days upon her.

"*Oct. 5th* This week my carpenters worked 24 days upon my schooner—and John Askew 4 days.

"*12th* This week my carpenters worked 22 days upon my schooner—and John Askew 3 days.

"*19th* This week y^e carpenters worked 18 days, which make in all 190 days & 10 of John Askew."

Washington was noted for owning fine horses, he also enjoyed, on proper occasions, extending their use to visiting friends for a dash after a fox and hounds over the Mount Vernon plains,²⁵ a sport of which he was fond and frequently indulged in himself. In the chase, on his fine horse, he was usually the foremost hunter.

He was a rapid rider in his ordinary business journeys, and his Diaries record the fact that on various occasions he rode as much as 60 miles a day.

The possession of the Mississippi valley by the British and its settlement by Virginia had engaged the attention of George Washington from his youth. His brothers, Lawrence and Augustine, were among the original members of the Ohio Company, organized in 1748 to settle lands on the Ohio river and trade with the Indians. He was, therefore, reared in an atmosphere of admiration for and conviction of the future greatness of this western territory. His Diary for July 1st 1763, contains the following entry : "Went over to Stafford Court-House to attend a meeting of the Mississippi adventure, and lodged there." From the year 1754, the House of Burgesses, of

²⁵ The following observations on Washington's 'horsemanship' are taken from de Chastellux, page 69 :

"The weather being fair, on the 26th, I got on horseback, after breakfasting with the general—He was so attentive as to give me the horse he rode, the day of my arrival, which I had greatly commended—I found him as good as he is handsome ; but above all, perfectly well broke, and well trained, having a good mouth, easy in hand, and stopping short in a gallop without bearing the bit—I mention these minute particulars, because it is the general himself who breaks all his own horses ; and he is a very excellent and bold horseman, leaping the highest fences, and going extremely quick, without standing upon his stirrups, bearing on the bridle, or letting his horse run wild,—circumstances which our young men look upon as so essential a part of English horsemanship, that they would rather break a leg or an arm than renounce them."

Virginia, inspired by the report of Major George Washington in 1753, had annually before it, until the Revolution, some measure or report of committee to encourage and protect settlers on the waters of the Mississippi held to belong to Virginia. [*Journal of House of Burgesses.*] His cash book shows he was a generous contributor to measures to encourage settlement and take up land in the valleys of the Ohio and Mississippi.

Notwithstanding Washington's many engagements, he was not neglectful or unappreciative of the amenities of social intercourse. His home, even at this period, was scarcely a day without visitors of note from some of the Colonies, foreign travelers, his relatives, or gentlemen on business. He occasionally accompanied Mrs. Washington and the children to return calls and pay his respects to his neighbors. The following extract from his Diary is in point:

"May 31st 1769.—* * * * * Set off with Mr. Washington and Patcy, Mr. W[arner] Washington and wife, Mrs. Bushrod and Miss Washington, and Mr. Magowen for 'Towlston,' in order to stand for Mr. B. Fairfax's third son, which I did together with my wife, Mr. Warner Washington and his lady."

In seasons of harvesting and seeding, or when any other important work was going on which required special attention, it was Washington's habit to visit several of his plantations, or all of them, to confer with his overseers before he ate his breakfast. When the full round of the plantations was made, the ride amounted to about ten miles. This ought to have given him, as it doubtless did, a good appetite. On his return to the mansion-house, he would immediately refresh himself with a wash, while the servant would place upon the table in the dining-room a fresh, warm breakfast. This meal usually consisted of fresh fish, breakfast bacon or ham, eggs, corn-cakes, fresh butter, honey and coffee or tea. Mrs. Washington, with her good taste and characteristic tact, even though the General was a little late, managed to join and cheer him at table.

The regular hour for dining at Mount Vernon was three, although the working-people dined at twelve o'clock.²⁶ It was the General's habit to make a toilet immediately before sitting down to table, whether he had been out riding or had remained in or about the house, was alone or had company. The opportunity was also afforded to all guests to refresh themselves before going into the dining-room.

The intense earnestness of Washington in the prosecution of his farming interests extended, in a degree, to all the employes on his estates. His people knew that he was just and considerate and that they and their work were constantly under his supervision. They also knew that he desired to have all his work done in the best possible manner. The versatility and never-flagging application which Washington exhibited in all his business affairs, must always excite admiration. His power of endurance and celerity of movement from place to place were marvelous. He had, too, that self-command which enabled him to pass from one occupation to another, or from the exciting sport of the chase immediately to the discharge of intricate business transactions, such as the drafting of a lease or deed and other papers requiring legal or expert knowledge, or the plotting of a survey, without the least flurry or confusion. It was a rule with him to be prompt in attending business engagements. The following extract from his Diary is fairly illustrative of this :

²⁶ Washington was an early riser, out before the sun was up or engaged in his study writing. The breakfast hour at Mount Vernon, in summer, was seven o'clock and in winter, eight. During Colonial times dinner was served in the mansion house usually at two o'clock. After the Revolution the time for that meal was three o'clock the year round. His usual beverage was small beer, cider, and Madeira wine. Tea was served in the dining-room—or if the company was very large, handed round—between seven and eight o'clock. The hospitality at Mount Vernon was so generous as almost to amount to an open house. Washington was a most liberal provider and himself a hearty eater, but neither in his letters or diaries does he complain of the tables at which he ate in traveling nor record what he had upon his own. But on several occasions he states that he lived plainly. To a friend he wrote, " My manner of living is plain, and I do not mean to be put out by it. A glass of wine and a bit of mutton are always ready, and such as will be content to partake of them are always welcome. Those who expect more will be disappointed."

"March 5, 1769—Went up to Alexandria after Fielding Lewis and brought him down to dinner, where I found Mr. Warner Washington, who returned after dinner.

"6th Set out with Fielding Lewis for Fredericksburg, which we reached after dining at Peyton's at Aquia, i. e. reached my mother's.²⁷

²⁷ Although this was a ride of about 45 miles, he rode over the same ground in less time on receiving a message of the dangerous illness of his mother and sister. His diary of April 27th, 1787, says: "About sunrise I commenced my journey as intended. Bated at Dumfries and reached Fredericksburg before two o'clock and found both my mother and sister better." Washington, from his childhood, had a most reverential love and respect for his mother, which continued unabated to the close of her life. The prevalence of ceremony in Colonial days led him to address his mother, in at least some of his communications to her, as "Honored Madam," and at the close subscribe himself "Your most dutiful son." Mary Washington, like her son, was in the conduct of life eminently practical and chose to manage and maintain her independent estate according to her own notions, having sufficient for her needs. She removed from her farm to the town of Fredericksburg in 1775 and resided in a comfortable house owned by her son George. It was within a hundred yards of "Kenmore" mansion, the residence of her daughter, Betty Lewis. As age advanced her children and grandchildren made her frequent visits and saw to it that she wanted for nothing that could add to her comfort. The General had repeatedly urged his mother to make Mount Vernon her home, which she declined. Her daughter, Mrs. Fielding Lewis, had also begged her to reside with her in "Kenmore," but she persisted in her determination to maintain her own independent establishment. Her son, John Augustine, had also often and earnestly entreated her to give up the cares of a house and live with him. February 15th, 1787, Washington wrote his mother a long and earnest letter on family affairs and in her special interest, looking to her comfort in her declining years. In this letter he urged her to make her home with one of her children, to rent her farm and take with her her horses and carriages and such servants as she desired; but this, like all former advice, of the kind was declined. Washington's account book from 1754 shows that he advanced considerable sums to his mother. In his letter of September 13th, 1789, to his sister, after their mother's demise, he says "I want no restitution of these sums." And on his ledger beneath the account of over £500-0-0 against his mother, he writes "Settled." His cash book under date of March 11th, 1789, has the following: "By my expenses on a visit to my mother at Fredericksburg, £1-8-0. By Mrs. Mary Washington advanced her 6 Guineas." His mother died August 25th, 1789, five months after this interview. It

" 7th Went to Fredericksburg & remained there all day—dine^d at Col^o Lewis's.

" 8. Still there. Dined at the same place, spending y^e evening at Weedons at y^e club.

" 9. Set off for Rob^t Ashby's, and after dining by the way, reached it a little after dark.

" 10. Went out to run out the bounds of the land I bot^t of Carters Estate, but y^e weather being very cold & windy was obliged to return.

" 11. Went out again on the same business & returned at night to Captⁿ Ashbys.

" 12. At Captⁿ Ashbys all day—in the afternoon Captⁿ Marshal came & spent y^e evening.

" 13. Out a surveying till Night with sev^l attending.

" 14. Out in like manner.

" 16. Out again with many People attending.

" 16. Ditto. Ditto. Ditto.

is presumed that this was the last visit and interview the General had with his aged mother and supplied the incident for the pathetic parting as described by Lossing in "Recollections and Memoirs of Washington," by G. W. Park Custis, p. 145, and repeated in "Mary and Martha Washington," p. 66. He assigns the date of this visit as the 14th of April, 1789, when the President is said to address his mother in the following words: "The people, madam, have been pleased with the most flattering unanimity to elect me to the Chief Magistracy of these United States, but before I can assume the functions of my office, I have come to bid you an affectionate farewell. So soon as the weight of public business, which must necessarily attend the outset of a new government can be disposed of, I shall hasten to Virginia and"—here the matron interrupted with—"and you will see me no more; my great age, and the disease which is fast approaching my vitals warn me that I shall not be long in this world; I trust in God that I may be somewhat prepared for a better. But go, George, fulfill the high destinies which Heaven appears to have intended you for; go, my son, and may that Heaven's and a mother's blessing be with you always." In a letter to his sister, on learning of his mother's death, he says: "Awful and afflicting as the death of a parent is, there is consolation in knowing that Heaven has spared ours to an age beyond which few attain, and favored her with the full enjoyment of her mental faculties and as much bodily strength as usually falls to the lot of four score. Under these circumstances, and the hope that she is translated to a happier place, it is the duty of her relations to yield due submission to the decree of the Creator."

"17. Executing Leases to those who had taken Lotts—being at Captⁿ Ashby's.

"18. Went up to Greenway Court where I dined and stayed all Night—met Col^o Lewis here.

"Mar. 19. Went with Col^o Lewis to his Plantations where I stayd all day & Night.

"20. Executing in the forenoon Deeds and settling with those who had purch^d Carters Land upon Opeckon—in the afternoon rid to Valentine Crawf^d.

"21. Went and laid off 4 Lots at the head of Bullskin for several tenants.

"22. Filling up leases for them at Val Crawfords all day.

"23. Set of homewards—Breakfasted at M^r Ariss's—din'd at ye Ridge & lodged at West's.

"24. Reached home before dinner—found Col^o Bassett, Lady & 2 Childⁿ Betsy & Nancy here also M^r W^r Washington & Jacky Custis.

"25. Went Fox hunting with Col^o Bassett & M^r Bryan Fairfax who also came here last night—started and run a fox into a hole after an hours chase—M^r Fairfax went home after dinner."

The intelligent supervision Washington gave to his plantations between 1760 and 1770, brought them into as fine condition as any land in the Mount Vernon region was susceptible of. He stopped the washes in the fields, drained the wet lands by proper ditching, made new clearings, refenced the fields, made roads, erected comfortable houses, barns and quarters for his people, rested the old fields in fallow, sowed clover, timothy and other grasses for hay pasture and for enriching the soil, and rotated his crops in the most judicious and practical manner. He was a good judge of the quality of land and knew as well as any man that the soil of his Mount Vernon estate was thin and capable of yielding but moderate crops. However, he seems never to have complained or expressed an inclination to remove to better land. He owned large tracts of first-class limestone land on the Bullskin in Frederick county, Virginia, which he cultivated with profit.²⁸ The facts are beyond ques-

²⁸ Received from George Washington the 18th. day of Aug. 1764 The Sum of two pounds three shillings for bringing down two Hhds of Tobo. in Joseph Thompson's Waggon from Frederick) his

JOHN BENNET
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tion that he was deeply attached to his home on the Potomac, and found his greatest enjoyment of life in the peaceful shades of Mount Vernon and in the cultivation of its soil.²⁹ From 1770 to the beginning of the Revolution he was gradually drawn to reflect upon public affairs, and especially upon the questions, then discussed, as to the rights of the Colonies under the Crown. His Diaries covering this period show the frequent visits to Mount Vernon of men of the first character in America who were interested in the politics of the Colonies.

In 1770 he visited the Ohio river bottoms to select land for the officers and men who were entitled to them under Governor Dinwiddie's proclamation of 1754, granting lands to those who volunteered and served that year in the expedition to the Ohio. Washington was among the first to call attention to the desirableness and, he hoped, the practicability of having a continuous water navigation by canal, or otherwise, to near the head of the Potomac and of the western rivers to the head of some branch of the Ohio river on the west which would leave but a short portage between. On the 20th of May, 1754, while in command of the expedition to build forts at the head of the Ohio, Washington, in a canoe, examined the Yougheny river for about fifteen or twenty miles above "Turkey Foot" and three below with a view of transporting his munitions of war down that river in boats. Although Washington did not find this stream in a condition to navigate boats that would serve his purpose, the possible improvement of the navigation so that craft of sufficient size to carry freight might eventually be used well up into the Alleghany mountains, remained a favorite project with him. His long military service on the Virginia frontier led him to converse much with traders, hunters and others familiar with the character of all the streams

²⁹ Washington wrote December 12th, 1793, to Arthur Young in the following words of Mount Vernon: "No estate in united America is more pleasantly situated than this. It lies in a high dry and healthy country; in a latitude between the extremes of heat and cold, on one of the finest rivers in the world, a river well stocked with shad, herring, bass, carp and sturgeon. The borders of the Estate are washed by more than ten miles of tide water."

At this time the Estate embraced in one compact body nearly 10,000 acres of land.

draining to the Ohio and Mississippi and all the passes in the mountains between the head springs of the streams draining to the Potomac and the James rivers, and to consider the question of a practical highway by some one of them. Although the difficulties seemed almost insurmountable, he nevertheless looked hopefully to such improvements in the art of navigation as to greatly assist in establishing a waterway for traffic with an easy portage between the East and what he saw would be the great and populous West in the near future. Washington had called such public attention to the subject that the House of Burgesses of Virginia, December 5th, 1769, took the following action, as their journal shows :

"Ordered, That leave be given to bring in a bill for clearing and making navigable the river Potomack, from the Great Falls of the said river up to Fort Cumberland; and that M^r Richard Henry Lee and M^r Washington do prepare and bring in the same."

In 1770, and again in 1784, Washington made something of a personal inspection of a possible portage between the waters of the Monongahela and the Potomac during his return trip from inspecting the Ohio bottom lands, and records his observations in his diary. In 1784 he wrote a strong letter to the Governor of Virginia on the subject.³⁰ His interest in canal

³⁰ In a communication from Mount Vernon October 10th, 1784, to Gov. Harrison of Va., after discussing the question of the practicability on the score of policy, Washington uses the following language : "I need not remark to you, sir, that the flanks and rear of the United States are possessed by other powers and formidable ones, too ; nor how necessary it is to apply the cement of interest to build all parts of the Union together by indissoluble bonds, especially that part of it, which lies immediately west of us, with the middle States. For what ties, let me ask, should we have upon these people? How entirely unconnected with them shall we be, and what troubles may we not apprehend, if the Spaniards on their right, and Great Britain on their left, instead of throwing stumbling blocks in their way, as they now do, should hold out lures for other trade and alliance? What, when they get strength, which will be sooner than most people conceive (from the emigration of foreigners, who will have no particular predilection towards us, as well as from the removal of our own citizens) will be the consequence of them having formed close connexions with both or either of those powers, in a commercial way? It needs not, in my opinion, the gift of prophecy to foretell.

navigation was well known, and when James Rumsey was, in 1786, experimenting at Shepherdstown on the Potomac with a boat to be propelled against a stream by machinery, Washington was invited to witness the performance of his boat, so widely was it understood that he was an influential promoter of new inventions.—(*See his letter to Rumsey in Sparks.*)

In 1774, when the discontent among the American Colonies became so great that a conference of representatives from the Provinces was resolved upon to secure unity of action, Washington was selected, with great unanimity, as one of the delegates sent by Virginia to the meeting at Philadelphia in September. He attended this one and also a second Congress, which assembled there the following year.

Washington's great and priceless services to America in the clash of arms which shortly after ensued between the Mother Country and the Colonies are, I am fain to believe, known to every American capable of enjoying civil liberty. For this reason the period of the Revolution is thus summarily passed over. It is also known that throughout that memorable struggle it was Washington's personal, magnetic patriotism, and the faith his soldiers had that he would devise means³¹ to over-

"The Western States (I speak now from my own observation) stand as it were upon a pivot. The touch of a feather would turn them any way. They have looked down the Mississippi, until the Spaniards, very impolitically I think for themselves, threw difficulties in their way; and they looked that way for no other reason than because they could glide gently down the stream; without considering, perhaps, the difficulties of the voyage back again, and the time necessary to perform it in, and because they have no other means of coming to us but by long land transports and unimproved roads. These causes have hitherto checked the industry of the present settlers; for except the demand for provisions occasioned by the increase of population, and a little flour, which the necessities of the Spaniards compel them to buy, they have no incitement to labor. But smooth the road, and make easy the way for them, and then see what an influx of articles will be poured upon us; how amazing your exports will be increased by them, and how amply we shall be compensated for any trouble and expense we may encounter to effect it."

³¹ Pen-pictures of Washington by capable hands at different periods of his life, possess an especial interest. The following description of the General's personal appearance in 1778 is taken from Dr. James Thatcher's "Military Journal of the Revolution," page 150:

come the apparently insurmountable difficulty of keeping him to his forces in the field against the enemy, in spite of an empty exchequer, a depleted commissary and a lack of

"The personal appearance of our Commander-in-Chief is that of the perfect gentleman and accomplished warrior. He is remarkably tall, full six feet, erect and well proportioned. The strength and proportion of his joints and muscles appear to be commensurate with the preëminent power of his mind. The serenity of his countenance and majestic gracefulness of his deportment, impart a strong impression of that dignity and grandeur, which are his peculiar characteristics, and no one can stand in his presence without feeling the ascendancy of his mind and associating with his countenance the idea of wisdom, philanthropy, magnanimity and patriotism. There is a fine symmetry in the features of his face indicative of a benign and dignified spirit. His nose is straight, and his eyes inclined to blue. He wears his hair in a becoming cue, and from his forehead it is turned back and powdered in a manner which adds to the military air of his appearance. He displays a native gravity, but devoid of all appearance of ostentation. His uniform dress is a blue coat with two brilliant epaulets, buff colored underclothes, and a three-cornered hat with a black cockade. He is constantly equipped with an elegant small sword, boots and spurs, in readiness to mount his noble charger."

The following appears as a note in the first volume of Sparks, page 110, relative to the stature of General Washington: "From an order, which he sent to a tailor in London, we learn the size of his person. He describes himself as 'six feet high and proportionably made; if anything rather slender for a person of that height,' and adds that his limbs were long. At this time he was thirty-one years old. In exact measure, his height was six feet, three inches."

An admirable delineation of General Washington's personal appearance the year before the Yorktown surrender was published in the London *Chronicle* in the following language: "General Washington is now in the forty-seventh year of his age. He is a tall, well-made man, rather large-boned, and has a genteel address. His features are manly and bold; his eyes are a bluish cast and very lively; his hair is a deep brown, his face rather long, and marked with the smallpox, his complexion sunburnt and without much color. His countenance sensible, composed and thoughtful. There is a remarkable air of dignity about him, with a striking degree of gracefulness. He has an excellent understanding, without much quickness; is strictly just, vigilant, and generous; an affectionate husband, a faithful friend, a father to the deserving soldier, gentle in his manners, in temper, reserved; a total stranger to religious prejudices; in morals, irreproachable, and never known to exceed the bounds of the most rigid temperance. In a word, all his friends and acquaintances allow that no man ever united in his own person a more perfect alliance of the virtues of a philosopher with the talents of a general. Candor, sincerity, affability, and simplicity seem to be the striking features of his character; and when occasion offers, the power of displaying the most determined bravery and independence of spirit."

clothing.³² This was a period of extreme hardships and the deficiencies in necessary supplies put to a supreme test the greatness of Washington as a leader and a patriot; and required a fortitude and an inventive genius of the highest order to keep his army together. His virtues and rectitude from the beginning and his conduct at every stage of the contest determined the end and crowned the work. Washington was referred to by Lord Byron as the great Cincinnatus of the West, who, like his classic prototype, was called from his favorite pursuit, that of agriculture, to command the armies of his country, in defence of its liberty, against a formidable enemy. Having brought the struggle to a successful issue, Washington, like Cincinnatus, was tempted with a crown, and like him unconditionally laid down supreme power to become once more the private citizen; and returned, like Cincinnatus, to his plow and to peaceful pursuits.

Washington possessed, to an eminent degree, those special qualities which are characteristic of the most astute inventors, and had not his time been so fully taken up in the important affairs of his country, he would, in all probability, have given

³² The following extract from the "Travels of the Marquis de Chastellux in North America in the years 1780-'81-'82," forcibly illustrates this point:

"Four or five miles from Fishkill, I saw some felled trees, and an opening in the woods, which on coming nearer I discovered to be a camp, or rather huts inhabited by some hundred invalid soldiers. These invalids were all in very good health; but it is necessary to observe, that in the American armies, every soldier is called an invalid, who is unfit for service; now these had been sent here because their clothes were truly invalids. These honest fellows, for I will not say creatures, (they know too well how to suffer, and are suffering in too noble a cause) were not covered, even with rags; but their steady countenance, and their good arms in good order, seemed to supply the defect of clothes, and to display nothing but their courage and their patience."

Washington in writing Gov. Trumbull on the condition and needs of the army December 29th, 1777, says: "I assure you sir, it is not easy to give you a just and accurate idea of the sufferings of the army at large, of the loss of men on this account [want of clothing]. Were they to be minutely detailed your feelings would be wounded, and the relation would probably be received with a degree of doubt and discredit. We had in camp, on the 23d inst., by a field return then taken, not less than 2,898 men unfit for duty, by reason of their being barefoot and otherwise naked. Besides this number, sufficiently distressing of itself, there are many others detained in hospitals and crowded in farmers' houses for the same causes."

much attention to improvements in agriculture and the machinery and implements used in the domestic arts, which are so essential to the comforts of civilized life. Washington had made for him the first pump used in the town of Alexandria, and another at Mount Vernon, at a time when but few had been put in competition with "the old oaken bucket," the rope and windlass, or the balance lift, so common in wells throughout the South in early days. He had the genius to see things as they were and to appreciate their true relation. He eliminated accidental causes or other circumstances, whether as to time, men or things; make original observations and reflect upon what he saw. He could make combinations, or divide forces, and had a just sense of the bearing and influence of one thing upon another.

About the period of his return to Mount Vernon, after the war, he was in the enjoyment of his highest physical vigor and mental activity.³³ At this time circumstances had

³³ I am confident I will be excused in asking space, in a note, for this exquisite, though but little known, pen portrait of General Washington, drawn by the capable and appreciative hand of the Marquis de Chastellux, near the close of the Revolution :

"Here would be the proper place to give the portrait of General Washington, but what can my testimony add to the idea already formed of him? The continent of North America, from Boston to Charleston, is a great volume, every page of which presents his eulogium. I know, that having had the opportunity of a near inspection, and of closely observing him, some more particular details may be expected from me; but the strongest characteristic of this respectable man is the perfect union which reigns between the physical and moral qualities which compose the individual; one alone will enable you to judge of all the rest. If you are presented with medals of Cæsar, of Trojan, or Alexander, on examining their features, you will still be led to ask what was their stature, and the form of their persons; but if you discover, in a heap of ruins, the head or the limb of an antique *Apollo*, be not curious about the other parts, but rest assured that they all were conformable to those of a god. Let not this comparison be attributed to enthusiasm! It is not my intention to exaggerate, I wish only to express the impression General Washington has left on my mind; the idea of a perfect whole, that cannot be the product of enthusiasm, which rather would reject it, since the effect of proportion is to diminish the idea of greatness. Brave without temerity, laborious without ambition, generous without prodigality, noble without pride, virtuous without severity; he seems always to have confined himself within those limits, where the virtues, by clothing themselves in more lively, but more changeable and doubtful colours, may be mistaken for faults. This is the seventh year that he has commanded the army, and that he has obeyed the Congress; more need not be said, especially in America, where they know how to appreciate all the merits contained in this simple fact. Let it be repeated that Condé was intrepid, Turenne prudent, Eugene adroit, Catinat disinterested. It is not thus that Washington will be characterized. It will be said of him, AT THE END OF A LONG CIVIL WAR, HE HAD NOTHING WITH WHICH HE COULD REPROACH HIMSELF. If any thing can be more marvellous than

forced upon him a very heavy correspondence, foreign and domestic, on a multitude of subjects. His social duties, too, had become exacting, in receiving and entertaining, at his own house, great numbers of visitors of note from the several States, and also from abroad. In this office he was ably assisted by Mrs. Washington.³⁴ He now planned extensive improvements to the Mount Vernon Mansion-house and its grounds. While he was strongly imbued with progressive ideas, he was by no means an iconoclast. He therefore endeavored to preserve whatever was serviceable in the old Mansion-house, which he did by extending it to the north and south, and raising the whole structure to two full stories with a finished attic, crowned with a cupola. He also erected a wide, open piazza³⁵ the full

such a character, it is the unanimity of the public suffrages in his favour. Soldier, magistrate, people, all love and admire him; all speak of him in terms of tenderness and veneration. Does there then exist a virtue capable of restraining the injustice of mankind; or are glory and happiness too recently established in America, for envy to have deigned to pass the seas?

"In speaking of this perfect whole of which General Washington furnishes the idea, I have not excluded exterior form. His stature is noble and lofty, he is well made, and exactly proportioned; his physiognomy mild and agreeable, but such as to render it impossible to speak particularly of any of his features, so that in quitting him, you have only the recollection of a fine face. He has neither a grave nor a familiar air, his brow is sometimes marked with thought, but never with inquietude; in inspiring respect, he inspires confidence, and his smile is always the smile of benevolence." [Pages 71-72.]

³⁴ Although relieved from public office, Washington was not freed from care and the obligations that follow those who have filled important positions. The rest craved by the General and Mrs. Washington was not granted to them. Indeed, it may be doubted if they found any considerable retirement in their loved Mount Vernon home. Writing to General Knox, Washington said: "It is not the letters from my friends which give me trouble, or add aught to my perplexity. It is references to old matters, with which I have nothing to do; applications which oftentimes cannot be complied with; inquiries which would require the pen of an historian to satisfy; letters of compliment, as unmeaning perhaps as they are troublesome, but which must be attended to, and the commonplace business which employs my pen and my time, often disagreeably. Indeed these, with company, deprive me of exercise, and unless I can obtain relief, must be productive of disagreeable consequences."

³⁵ The piazza is from end to end 96 feet long by 12 feet 8 inches wide with the border, and two stories high, supported on eight graceful square columns, the effect of the whole, whether viewed from the lawn or from the deck of a steamer on the river, is light and pleasing. The

height and length of the mansion on the river front ; and while exercising proper economy, he did all the work of alteration in the most substantial manner after his own designs and drawings.

Washington's love of agriculture and a life in the open country led him to see beauty, to an unusual degree, in the forms and colorings of nature ; so that in riding through the woods, he was frequently delighted with the grace and symmetry of some tree, a specimen of which he would instantly resolve to have on his lawn and note the fact in his diary, describing it by name and where it was to be found, as also where he desired it to be planted.³⁶ The following extracts from his diary illustrate his admiration for our forest trees :

"Tuesday, Febr^y 22^d 1785 * * * * * Removed two pretty large & full-grown lilacs to the N^o Garden gate—one on enlarged and renovated "cottage" or "villa," as Washington occasionally called his old mansion, was nearly completed in 1785. Although both the General and his wife earnestly desired a quiet, peaceful home, the man who had laid the foundation of the republic was too great a personage to be left alone or in seclusion. The enlargement of his "villa" was practically forced upon him to enable him to give a respectable reception to the many visits he was daily receiving from his countrymen, strangers, soldiers, and civilians, who by a sort of intuition and sense of reverence, began pilgrimages to "Mount Vernon," which have never been interrupted, but are yearly on the increase. This broad piazza, during the General's lifetime, was a sort of trysting place in summer evenings where the family, guests and neighbors in their informal calls assembled for an hour's chat at the close of day. In the appraiser's list of household effects at Mount Vernon after the General's death, thirty Windsor chairs were enumerated as furniture on the piazza.

³⁶ The ornamental lawn on the west front of the mansion, containing about 20 acres, with serpentine carriage drive along each side, was laid out by the General himself, the drawing of which, in his own hand, is still preserved. Directly in front of the center door of the house is a large circle with a sun dial in the center, it is an exact reproduction of the one placed there by the General. Along each side of the serpentine roadway, Washington planted a great variety of our most beautiful native forest trees for ornament and shade. A number of the trees planted by the General still flourish on this lawn. Extensive gardens border on these grounds. The flower garden on the north and the vegetable garden on the south, are both enclosed by massive brick walls. The flower garden and green house is maintained in nearly its original form and contains many of the same kinds of plants cultivated there by General Washington.

each side, taking up as much dirt with the roots as c^d be well obtained. * * * I also removed from the woods and old fields, several young trees of the sassafras, Dogwood & Red-bud, to the Shrubbery on the N^o side the grass plot.

"Wednesday, 23^d * * * * Brought down a number of young Aspen trees from one of Sam^l Jenkins's near the old Court House to transplant into the serpentine Avenues to the door.

"Monday, 28th * * * * * Planted all the Mulberry trees, Maple trees, & Black gums in my Serpentine walks—and the Poplars on the right walk. * * * Also planted 4 trees from M. Hole, the name unknown but of a brittle wood which has the smell of Mulberry.

"Tuesday, March 1st 1785 * * * * * Planted the remainder of the Poplars and part of the Ash Trees—also a circle of Dogwood with a red bud in the Middle close to the old cherry tree near the south garden H^o.

"Wednesday, 2^d * * * * * Planted the remainder of the Ash Trees—in the Serpentine Walks—the remainder of the fringe trees in the Shrubberies—all the black haws—all the large berried thorns—with a small berried one in the middle of each clump—6 small berried thorns with a large one in the middle of each clump—all the swamp red berry bushes & one clump of locust trees.

"Thursday, 3^d * * * * * Planted the remainder of the Locusts—Sassafras—small berried thorns & yellow Willow in the Shrubberies as also the red buds—a honey Locust and Service berry tree by the south garden House—likewise took up the clump of Lilacs that stood at the corner of the south grass plot & transported them to the Shrubberies & standards at the South garden gate—the Althea trees were also planted."

Washington records in his "Journal of my Journey Over the Mountains," page 20:

"Sunday, March 13th 1747-8—Rode to his Lordship's Quarters; about 4 Miles higher up y^e River we went through Most beautiful Groves of Sugar trees & spent y^e best part of y^e Day in admiring y^e trees & richness of y^e land."

It would seem from his Diary, while at Mount Vernon, from 1783 to 1789, that he was endeavoring to have good represen-

tative specimens of all or most of our beautiful forest trees which would thrive in this climate transplanted to his grounds. He continued to give close, personal attention to this matter until he was called to assume the duties of President of the United States.³⁷ Even then he did not intermit his interest, as his letters of instruction to his overseers, and his shipments of

³⁷ The 4th of March, 1789, had been fixed for the meeting of the First Congress under the Constitution of the United States, and an election for President directed to be held in February, 1789. It had been announced that the people of nine of the thirteen States had approved and adopted the Constitution submitted through the Legislatures to them. Two, Rhode Island and North Carolina, had not come to a decisive action, but did within two years provided for. The absence of a quorum prevented the organization of Congress until the 6th of April. The votes of the electors were then opened and counted, and George Washington's election to the Presidency of the United States, which was duly declared, and a special messenger, Charles Thomson, dispatched to Mount Vernon with an official letter from the President of the Senate to General Washington notifying him of the fact and requesting his attendance. Washington was deeply sensible of the responsibility attached to the office, as the following extract from his diary written the day of his departure for New York, April 16, 1789, Mrs. Washington following him, leaving Mount Vernon 19th May : "About ten o'clock I bade adieu to Mount Vernon, to private life, and to domestic felicity, and with a mind oppressed with more anxious and painful sensations than I have words to express, set out for New York in company with Mr. Thomson and Colonel Humphreys, with the best disposition to render service to my country in obedience to its calls, but with less hope of answering its expectations." In a letter to General Knox April 1st, 1789, he wrote : "I feel for those members of the new Congress, who hitherto have given an unwavering attendance at the theater of action. For myself, the delay may be compared to a reprieve ; for in confidence I tell *you*, (with the *world* it would obtain little credit) that my movements to the chair of government will be accompanied by feelings not unlike those of a culprit who is going to the place of his execution. So unwilling am I in the evening of life, nearly consumed in public cares, to quit a peaceful abode for an ocean of difficulties, without that competency of political skill, abilities, and inclination, which are necessary to manage the helm. I am sensible that I am embarking the voice of the people and a good name of my own, on this voyage, but what returns can be made of them, Heaven alone can foretell. Integrity and firmness are all I can promise. These, be the voyage long or short, shall never forsake me ; although I may be deserted by all men ; for of the consolations which are to be derived from them, under any circumstances, the world cannot deprive me."

shrubbery to Mount Vernon testify. A bill from Bartram's Nursery at Philadelphia, as late as 1792, of choice shrubbery to make good failures of plants in a former order, is preserved in the Department of State. The first has also been preserved, but is without date. They illustrate so well his taste and fondness for beautiful trees and shrubbery and his attention to the embellishment of his Mount Vernon grounds, that the latter order is given in full in a note.³⁸

³⁸ The writer some years since gave a copy of this list of trees and shrubs, the original of which is preserved among the Washington papers in the Department of State, to one of the vice-regents of Mount Vernon, who, it is understood, is making an effort to have restored to the lawns and gardens as many specimens of the trees and shrubs, known to have been planted there by Washington, as is practicable. It is also reported that this lady submitted the list to one of the leading florists of our country and has already made progress in having specimens called for in this list, planted at Mount Vernon.

List of Trees Shrubs &c^a had of Jno^o Bartram to supply the place of those of his catalogue of M: 92 which failed.

Nov^r 7th 1792.

- No^o 2.d Ulex europeus E grows ⁱⁿ 3 to 4 feet high. Embellished with sweet scented flowers of a fine yellow colour.
- a. 3. Hypericum kalmeanum 3 to 4 ft. Profusely garnished with fine gold coloured blossoms—2 plants.
- 4. Hyperie: Augustifolium 3 to 6 ft. Evergreen, adorned with fine yellow flowers.
- e. 5. Taxus procumbens 3 to 6 ft. Evergreen—of a splendid full green throughout the year—red berries.
- 6. Buscus aureus E 3 to 10 ft. Elegant, called gilded box.
- 7. Daphne mezerium E. 1 to 3 ft. An early flowering sweet scented little Shrub.
- 7. Calycanthus floridus 4 to 8 ft. Odoriferous, its blossoms scented like the Pine apple.
- E. 10. Aesculus hippocastanum 20, 40, to 50 ft. A magnificent flowering and shady tree.
- 11. Evonymus atrapurpurinus 6 to 8 ft. Its fruit of a bright crimson in the autumn (*burning bush*) 3 plants.
- 13. Franklinia 3, 15 to 20 ft. Flowers large, white and fragrant. Native of Georgia.
- 16. Kalmia angustifolia 1 to 2 ft. Evergreen garnished with crimson speckled flowers, 4 plants.
- 24. Halesia tetrapeta 4, 10, to 15 ft. Flowers abundant, white, of the shape of little bells.
- 25. Viburnum opulifolium 3 to 7 ft. Of singular beauty in flower & fruit.
- 27. Virburnum alnifolium 3 to 6 ft. Handsome flowering shrub.
- 29. Sorbus Sativa E 10, 15 to 30 ft. Its fruit pear and apple shaped, as large and well tasted when mellow.
- 31. Sorbus aucuparia 8, 15 to 30 ft. Foliage elegant: embellished with umbells of coral red berries.

Washington was strongly inclined to engage in experimental tests and demonstrations, and on a wide range of subjects, as the following extracts from his Diary will evince :

"December 1, 1785. * * * * * In order to try the difference between burning Spermaciti and tallow candles—I took one of each

"The 1st weighing 3 oz 10 p 6 gr

" 2^d Ditto 5 " 2 p

and lighted them at the same instant—the first burnt 8 hours and 21 minutes; when of the latter there remained 14 penny-weights which continued to burn one hour and a quarter longer, making in all 9 hours and 30 minutes.—By which it appears (as both burnt without flaring) that, estimating spermaciti Candles at 3/- per lb & Tallow candles at 1/- lb the former is dearer than the latter as 30 is to nearly 13. In other words more than 2½ dearer."

- e. 36. *Stewartia malachodendron* 5 to 8 ft. Floriferous, the flowers large and white, embellished with a large tuft of black or purple threads in their centre.
- 38. *Styrax grandifolium* 3 to 10 ft. A most charming flowering shrub, blossoms snow white, & of the most grateful scent (call'd Snow-drop tree.)
- 39. *Philadelphus coronarius* E 4, 6, 10 ft. A sweet flowering shrub (called mock orange).
- 40. *Philadelphus inodorus* 5, 7, 10 ft. His robe a silver flowered mantle.
- e41. *Pinus Strobus* 50, 80, 100 ft. Magnificent! he presides in the ever-green Groves (White Pine), 4 plants.
- *42. *Pinus communis* E 20, 40, 60 ft. A stately tree, foliage of a Sea green colour, and exhibits a good appearance whilst young. (*Scotch Fir.*)
- *43. *Pinus Larix* E 40 to 60 ft. Elegant figure & foliage.
- 45. *Robinia villosa* 1, 2, 3, 5, 6 ft. A gay shrub enrobed with plum'd leaves and roseat flowers, 3 plants.
- 52. *Prunus chicasa* 6, 8, 10 ft. Early flowers, very fruitful; the fruit nearly round, cleft, red, purple, yellow of an enticing look, most agreeable taste & wholesome. (chicassaw Plum.)
- 57. *Aesculus alba* 1, 4, 6 ft. The branches terminate with long erect spikes of sweet white flowers.
- E 58. *Juniperus sabina* 1 to 5. Evergreen.
- + 54. *Aesculus pavia* 6, 8, 10, 12, 15 ft. It's light and airy foliage crimson and variegated flowers, present a gay & mirthful appearance; continually, whilst in bloom, visited by the brilliant thundering Huming-bird. *The root of this tree is esteemed preferable to Soap, for scouring & cleansing woolen clothes.* (2 plants).
- c. 63. *Myrica gale* 2 to 4 ft. Possesses an highly aromatic, and very agreeable scent. (3 plants).
- 69. *Mespilus pubescens* 2, 3, 4 ft. An early flowering shrub of great elegance, produces very pleasant fruit. (2 plants).

It is not to be wondered at, perhaps, that in a new country, sparsely settled, and with but few skilled mechanics, early colonial farmers as a general rule continued to use the implements they found in use, and gave but little thought to their efficiency or made any effort to improve them. The use of fertilizers, too, was grudgingly and slowly resorted to by American farmers, who affected to have the most unbounded faith in the strength and endurance of the virgin soil of the country. The better farmers, however, gradually began to study the best methods of keeping up the tilth of their lands, and to experiment with different fertilizers and test the relative values of them for the various crops. The following extract from Wash-

-
- E. f. 72. *Colutia arboroscens* 3, 6, 10 ft. Exhibits a good appearance; foliage pinnated, of a soft pleasant green colour, interspers'd with large yellow papillionaceous flowers in succession.
 77. *Prunus Divaricata* 6, 8 ft. Diciduous, flowers white in raumes, stems diverging & branches pendulous.
 78. *Hydrangia arborescens* 3, 5, to 6 ft. Ornamental in shrubberies—flowers white in large corymbes.
 79. *Andromeda exilis* 1 to 3 ft. Evergreen.
 80. *Acer pumilum*, s, *montanum* 4 to 8 ft. Handsome shrub for coppices foliage singular, younger shoots red.
 84. *Rubus odoratus* 3 to 7 ft. Foliage beautiful; flowers of the figure, colour & fragrance of the Rose.
 E. 92. *Laurus nobilis* 10, 20, 30 ft. Sweet Bay, a celebrated evergreen—leaves odoriferous.
 c. 101. *Arundo donax* 5, 6, 8 ft. Maiden Cane.
 In addition to the above,—
 № 1. *Mespilus pyracantha*. Evergreen Thorn, a very beautiful flowering shrub; in flowers & fruit, evergreen in moderate climates, and not to be exceeded in usefulness, for hedge Fences &c^a

October 30th 1792.

The following Letters in the margin serve to explain the natural soil & situation of the Trees, Shrubs &c^a

- a. rich, moist, loose or loamy soil, in shade of other trees.
- b. rich deep soil.
- c. wet moorish soil.
- d. Dry indifferent soil.
- e. A good loamy moist soil in any situation.
- f. Any soil and situation.
- E. Exoticks.—

[The following in General Washington's handwriting is written on the same sheet.]

Directions for disposing of the Trees, Shrubs &c^a mentioned in the foregoing list.—The intention of giving the heights to which they may grow, is, that except in the centre of the Six Ovals in the west Lawn;—and at each end of the two large Ovals; none of the tall, or lofty growing trees (evergreens) are to be planted.—But this I would have done in

ington's Diary shows that he was also engaged in this class of experiments :—

In his notes and observations on agriculture, under date of April 7th, 1786, he records these experiments: “Cut two or three rows of wheat (cape wheat within six inches of the ground), it being near eighteen inches high, that which was first sown, and the blades of the whole singed with the frost.”

“*Monday, Jan^y 30th 1786* * * * * * * * * * * *

* * * * * * * * * * * * * * * * *

On sixteen square rod of ground in my lower pasture, I put 140 Bushels of what we call Marl viz on 4 of these, N^o W^t corner were placed 50 bushels—on 4 others S^o W^t corner 30 bushels—on 4 others S^o E^t corner 40 bushels—and on the remaining 4=20 bushels. This Marl was spread on the sod in these proportions—to try first whether what we have denominated to be Marl possesses any virtue as a manure—and secondly—if it does, the quantity proper for an acre.”

In a letter to General Lincoln, dated Mount Vernon, 6th Feb., 1786, General Washington uses the following language in relation to a supposed important discovery :

“The discovery of extracting fresh water from salt, by a simple process and without the aid of fire, will be of amazing importance to the sons of Neptune, if it is not vitiated or rendered nauseous by the operation, and can be made to answer all the valuable purposes of other fresh water at sea. Every

all of them whether any thing occupies these particular spots, or not:—removing them if they do, to some other parts of the aforesaid Ovals.—At each end of the 4 Smaller Ovals, trees of middling growth (for instance those which Rise to 15, 20, or even to thirty feet) may be planted.—My meaning is, that in the Centre of every Oval (if it is not already there) one of the lofty growing trees should be planted; and the same done at each end of the two large Ovals;—and at the ends of the 4 Smaller ones, trees of lesser size to be planted.—The other parts of all of them to receive the Shrubs—putting the tallest, always, nearest the Middle, letting them decline more into dwarfs towards the outer parts.—This was my intention when they were planted in the Ovals last Spring—but I either did not express myself clearly—or the directions were not attended to.—I now hope they will be understood, and attended to, both.—The two trees marked thus (*) in the Margin, I would have planted by the Garden gates opposite to the Spruce Pines.—I believe common pine are now in the places where I intended these, but they may be removed, being placed there merely to fill up the space.—If any of these tall growing trees are now in any other part of the Ovals, except those here mentioned (and that you may be enabled better to ascertain this, I send you

maritime power in the world in this case ought, in my opinion, to offer some acknowledgment to the inventor." (*Spark's Washington*).

"Feb^r 6th 1786. * * * * * Planting pines in the wilderness on the left of the lawn and spading the ground there.

"Friday 10 Feby * * * * * Making up the banks
round y^e Serpentine walks to the front gate.

"Saturday 11th * * * * * Brought a Goose & Gander of the Chinese breed of Geese, from the Reverend M^r Griffiths—and also two of the large white (or Portugal) Peach Trees ;—and 2 Scions from a tree growing in his garden to which he could give no name—The last for my Shrubberies.

"Tuesday Feb^r 14th * * * * Employed all the women and weak hands (who on account of the snow) could not work out, in picking the wild onions from the Eastern Shore Oat for seed.

"Monday March 13th * * * * * Began to raise
the Mound of Earth on the right of the Gate coming in.

a list of what went from Bartrams Garden last Spring) I would have them removed, so as to conform to these directions;—and if there be more with what are now sent, than are sufficient to comply with these directions, there may be one on each side of the two large Ovals, making five in each.—You will observe that these *Pinus Strobus* (or white Pines) are the loftiest of all the Tall trees which now are, or have been sent; and that it is these which are to form your centre trees—and the end trees of the two large Ovals.—

I must request also that except the large trees for the Centre & sides no regularity may be observed in planting the other in the Ovals.—This I particularly desired last Spring, but found when I got home it was not attended to.—

When you have disposed of all the trees & Shrubs agreeably to these directions return this Paper, and the general list which accompanies it, back again to me ; as I may have occasion for them in procuring plants in future.

NOTE—If there are now growing in the Ovals, as many as 4 of the Hemlock Spruce (sent last Spring) let them be taken up when the ground is hard & deep frozen in the Winter, & placed on the sides of the two large Ovals instead of the white Pines, w^{ch} you might have put there in consequence of the aforesaid directions.

weeping Willow in my nursery in the center of it—ground too wet to do anything to the other Mound on the left.

"*Saturday, March 18th* * * * * * Got the Mound on the left so far compleated as to plant the next largest of my weeping willows thereon.

"*Tuesday, March 28th* * * * Replaced the following trees in my Shrubberies which were dead or supposed to be so viz 10 Swamp Magnolia 4 Red Buds—5 Black Haws—3 Locusts 1 swamp Red Berry.

"*Tuesday, April 4th 1786* * * Planted 6 of the pride of China brought from M^r Lyons by G. A. Washington in my Shrubberies in front of the House—3 on each side the Right & left Walks between the Houses & garden gates—and also the two young trees sent me some time ago by M^r Griffith to which no name had been given—these latter were planted, one on each side the right & left walks,—near the garden gates on the hither or E^t side.

"*Thursday 6th* * * * * * Transplanted 46 of the large Magnolia of S^o Carolina from the box brought by G. A. Washington last year—viz 6 at the head of each of the Serpentine Walks next the circle—26 in the Shrubbery or grove at the south end of the house & 8 in that at the N^o end—the ground was so wet, more could not at this time be planted there."

The following extracts from Washington's Diary give the details of his experiments in making what he called a "Barrel Plow," to be attached to a harrow in such a manner as to deposit seed in the ground when in motion :

"*Friday April 7th 1786* * * * * * Rid to Muddy hole Plantation and finding the ground which had been twice plowed to make my experiments in was middling dry in some places, though wet in others, I tried my drill or Barrel Plow, which requiring some alterations in the harrow, obliged me to bring it to the Smith's-Shop—this suspended my further operation with it to-day.

"*April 8th* Sowed oats to-day in drills at Muddy Hole with my barrel plough * * * * * *

"*April 11th* Sowed twenty-six rows of barley in the same field at Muddy Hole in the same manner with the drill Plough,

and with precisely the same workings (culture) the Oats had—adjoining thereto—This was done with 12 q^{ts} of Sd."

During the spring, summer and fall of this year he continues experiments with his barrel plough and says: "Will try the experiment of sowing with a six foot barrel and with grain dropped six inches square apart."

"Saturday 8th * * * * * Rid a little after sun rise to Muddy hole to try my drill plow again which with the alteration of the harrow yesterday I find will fully answer my expectation—and that it drops the grains thicker, or thinner in proportion to the quantity of seed in the Barrel—the less there is in it the faster it issues from the holes—the weight of a quantity in the barrel, occasions I (presume) a pressure on the holes that do not admit of a free discharge of the seed through them—whereas a small quantity (sufficient at all times to cover the bottom of the barrel) is in a manner sifted through them by the revolution of the barrel.

"I sowed with the barrel to-day in drills about 3 pints of a white well looking oat brought from Carolina last year by G. A. Washington in 7 rows running from the path leading from the Overseers H^o to the Quarter to the west fence of the field where the ground was in the best order.—Afterwards I sowed in such other parts of the adjoining ground as could at any rate be worked, the common oat of the Eastern shore (after picking out the wild onion) but in truth nothing but the late season could warrant sowing in ground so wet.

"Monday 10th Began my brick work to-day—first taking the foundations of the Garden Houses as they were first placed, and repairing the damages in the walls occasioned by the removal—and also began to put my pallisads on the wall.—

"Compleated sowing with 20 quarts the drilled oats in the ground intended for experiments at Muddy hole; which amounted to 38 Rows ten feet apart (including the parts of Rows sowed on Saturday last)—in the afternoon I began to sow Barley, but finding there were too many Seeds discharged from the barrel notwithstanding I stopped every other hole, I discontinued the sowing until another Barrel with smaller holes c'd be prepared.—The ground in which these oats have been sowed—and in which the Barley seeding had commenced—has

been plowed, listed (as it is called, that is 3 furrow ridges) and twice harrowed in with the manure afterw^{ds}.

" Began also to sow the Siberian Wheat which I had obtained from Baltimore by means of Col Tilghman, at the Ferry Plantation in the ground laid apart there for experiments.— This was done upon ground which, some time ago, had been marked off by furrows 8 feet apart in which a second furrow had been run to deepen them.—4 furrows were then plowed to these which made the whole 5 furrow Ridges.—These being done some time ago, and by frequent rains prevented sowing at the time intended,—had got hard,—I therefore before the seed was sowed, split these Ridges again, by running twice in the same furrow, after w^{ch} I harrowed the ridges, and where the ground was lumpy, run my spiked Roler with the harrow at the tale over it,—w^{ch} I found very efficacious in breaking the clods & pulverizing the earth ; and would have done it perfectly if there had not been too much moisture remaining of the late rains.

"After this harrowing & rolling where necessary, I sowed the wheat with my drill plow on the reduced ridges in rows 8 feet apart—but I should have observed that after the ridges were split by the furrow in the middle, and before the furrows were closed again by the harrow—I sprinkled a little manure in them.—Finding the barrel discharged the wheat too fast, I did, after sowing 9 of the shortest (for we began at the farthest corner of the field) rows, I stopped every other hole in the barrel, and in this manner sowed 5 rows more, & still thinking the seed too liberally bestowed, I stopped 2 & left one hole open alternately, by which 4 out of 12 holes only, discharged seed, and this, as I had taken the strap of leather off seemed to give seed enough (though not so regular as were to be wished)—to the ground.

" And sowed 26 rows of Barley (except a little at each end w^{ch} was too wet for the ground to be worked) at Muddy hole below & adjoining the oats—This was done with 12 quarts of

seed and in the manner, and in ground prepared as mentioned yesterday.

"Wednesday 12th * * * * *

" Rid to the fishing landing, Ferry, Dogue Run, and Muddy hole plantations.—Finished at the first sowing the ground intended for experiments with Siberian Wheat—this spot contained 16^A 1^R 24^P including the fodder H^o &c which would reduce the cultivated land to 10 acres at most.

" At Muddy hole, I sowed two rows of the Albany Peas in Drills 10 feet assunder (the same as the Oats and Barley) but conceiving they could not for want of support be prevented from falling when they shd come near their growth I did not incline to sow any more in this way but to put all the ground between these two rows and the fence along the road in broad Cast.—The ground in which these Peas were sowed was managed exactly as that had been in which the Barley & Oats (at this place) was—

"Monday May 8th 1786 * * * * *

Sent a Carpenter to put a new axle and do some other Repairs to the Barrel Plow at Dogue Run.³⁹

³⁹ Washington in the following letter to his friend Theodoric Bland, Esq., to whom he sends one of his barrel ploughs for a trial, in his letter gives a good description of the drill:

MOUNT VERNON, 28th Decemb'r: 1786.

Dear Sir,

I am now about to fulfill my promise with respect to the drill plow and timothy seed. Both accompany this letter to Norfolk, to the care of M^r Newton. The latter I presume is good, as I had it from a gentleman on whom I can depend. The former it is scarcely necessary to inform you, will not work to good effect in land that is very full either of stumps, stones, or large clods; but where the ground is tolerably free from these and in good tilth, and particularly in light land, I am certain you will find it equal to your most sanguine expectation, for Indian corn, wheat barley, pease, or any other tolerably round grain, that you may wish to sow, or plant in this manner. I have sown oats very well with it, which is among the most inconvenient and unfit grains for this machine.

To give you a just idea of the use and management of it, I must observe, that the barrel at present has only one set of holes, and these adapted for the planting of Indian corn, only eight inches apart in the row; but by corking these, the same barrel may receive others, of a size fitted for any other grain. To make the holes, observe this rule; begin small and increase the size till they admit the number of grains, or thereabouts you would choose to deposit in place. They should be burnt, and done by a guage, that all may be of a size, and made widest on the outside, to prevent the seeds choking them. You may, in a degree, emit more or less through the same holes, by increasing or lessening the quantity of seed in the barrel. The less there is in it,

* " Tuesday 9th * * * * * *

Found the Flax in the Neck had come up and full thick ;—and that the grass seeds (rather Millet) obtnd from Col^o Cary had come up ; but none of the Saintfoin, Burnet or Rib grass appeared to be springing,—finished planting, with the Barrel Plow, the early Corn in the farthest cut in the field for experiments in the Neck.—and not having enough to compleat another cut in the same field I ordered all the remaining part of it to be drilled with common corn—accordingly about Noon the intermediate rows in the middle cut which had been left for the early corn were begun to be planted with the other.

" Saturday 13th * * * *

* * * * * * * * *

" Finished (yesterday evening) planting Corn with the Barrel Plow, in the cut intended for experiments at Dogue Run.

" Tuesday 18th * * * * * At Muddy hole they finished planting Corn about 10 Oclock—At this place I tried a 3 hoed harrow which I had just made, with a single horse.—Upon the whole it answered very well—The draft seemed

the faster it issues. The compressure is increased by the quantity, and the discharge is retarded thereby. The use of the band is to prevent the seeds issuing out of more holes than one at a time. It may be slackened or braced according to the influence the atmosphere has on the leather. The tighter it is provided the wheel revolves easily, the better. By decreasing or multiplying the holes in the barrel, you may plant at auy distance you please. The circumpherauce of the wheels being six feet or seventy-two inches, divide the latter by the number of inches you intend your plants shall be assunder, and it gives the number of holes required in the barrel.

By the sparse situation of the teeth in the harrow, it is designed that the ground may be raked without the harrow being clogged if the ground should be cloddy or grassy. The string when this happens to be the case, will raise and clean it with great ease, and is of service in turning at the ends of rows ; at which time the wheels, by means of the handles, are raised off the ground as well as the harrow, to prevent the waste of seed. A small bag containing about a peck of the seed you are sowing is hung to the nails in the right handle, and with a small tin cup the barrel is replenished with convenience, whenever it is necessary without loss of time or waiting to come up with the seed-bag at the end of the row. I had almost forgot to tell you that if the hole in the leather band, through which the seed is to pass when it comes in contact with the hole in the barrel should incline to gape, or the lips of it turn out, so as to admit the seed between the band and barrel, it must be remedied by riveting a piece of sheet tin, copper, or brass the width of the band and about four inches long, with a hole through it, the size of the one in the leather. I found this effectual.

I am dear sir &

G^o WASHINGTON

To THEODORIC BLAND Esq

rather hard for one horse but the late rains had made the ground heavier than usual.

“ Monday May 22^d * * Began to take up the pavement of the Piazza.

“ Tuesday May 23^d * * *

* * * * * * * * * * * * Replanting the common corn which had been drilled at Muddy hole—finished planting peas with the Barrel in the Neck on Saturday last.—And listing the corn ground at the same place this day, for planting in the common way.

* * * * * * * * * * * * “ And this day began to lay the Flags in my Piazza⁴⁰—Cornelius and Tom Davis assisting.

⁴⁰ The following letter is given in a note by Sparks :

General Washington presents his compliments to M^r Rumney—would esteem it as a particular favor if M^r Rumney would make the following enquiries as soon as convenient, after his arrival in England; and communicate the result of them by the Packet, or any other safe and expeditious conveyance to this country. First. The terms upon which the best kind of Whitehaven Flag stone—Black and White in equal quantities—could be delivered at the port of Alexandria by the superficial foot, workmanship, freight and every other incidental charge included.—The stone to be 2½ inches, or thereabouts, thick, and exactly a foot square—each kind. To have a rich polished face, and good joints so as that a neat floor may be made therewith.

2nd Upon what terms the common Irish Marble (black & white if to be had)—same dimensions, could be delivered as above.

3rd As the General has been informed of a very cheap kind of Marble, good in quality, at or in the neighborhood of Ostend, he would thank M^r Rumney, if it should fall in his way, to institute an inquiry into this also. On the Report of M^r Rumney, the General will take his ultimate determination; for which reason he prays him to be precise and exact. The Piazza or Colonade for which this is wanted as a floor is ninety two feet eight inches, by twelve feet eight inches within the margin, or border that surrounds it. Over and above the quantity here mentioned, if the above flags are cheap—or a cheaper kind of hard Stone could be had he would get as much as would lay floors in the Circular Colonades, or covered ways at the wings of the House—each of which at the outer curve is 38 feet in length by 7 feet 2 inches in width within the margin or border as aforesaid.

The General being in want of a house Joiner & Bricklayer who understand their respective trades perfectly, would thank M^r Rumney for inquiring into the terms upon which such workmen might be engaged for two or three years; (the time of service to commence upon the ship's arrival at Alexandria) a shorter term than two years would not answer, because foreigners generally have a seasoning; which with other interruptions too frequently waste the greater part of the first year—more to the disadvantage of the employer than the employed.—Bed board & tools to be found by the former, clothing by the latter.

If two men of the above trades and of orderly and quiet deportment could be obtained for twenty five or even thirty pounds sterling per annum each (estimating dollars at 4/6) the General, rather than sustain the loss of time necessary for communication would be obliged to M^r Rumney for entering into proper obligatory articles of agreement on his behalf with them by the first vessel bound to this Port.

G^O. WASHINGTON

MOUNT VERNON, July 5 1787

To W^M RUMNEY of Alexandria Va

" Saturday 27th Finished laying 28 courses of the pavement in the Piazza—Weather very unfavorable for it.

Mr. Dodge, the efficient superintendent of Mount Vernon, has furnished me with a copy of the following unpublished letter of General Washington to John Rumney relative to the flagging used in paving the piazza :

MOUNT VERNON, VA. June 22^d, 1783.*

Sir

I stand indebted to you for two letters, one of the 8th of Sep., the other of the 9th of Feby. The first should not have remained so long unacknowledged but for the expectation I had of the second. The second lead me to expect a third; upon the receipt of which I had laid my account to have given you but one trouble, by replying to them all at the same time.

Permit me to thank you Sir for your attention to my commissions. The Joiner arrived safe, and I believe will fully answer your description & expectation of him. He gives great satisfaction; and seems well satisfied himself. The expense of his passage, & your advance to him, has been paid to M^r. Sanderson. I delayed making choice of either of the samples of Flagstones until I had seen the Irish marble; and was made acquainted with the cost of it; but as it did not come in your last ship, and I like the whitest & cheapest of the three kinds which you sent me by Capt. Atkinson; I request the favor of you to forward by the first opportunity (with some to spare in case of breakage, or other accident) as much of this sort, as will floor the Gallery in front of my house which, within the margin, or border that surrounds it, (and which is already laid with a hard stone of the country) is 92 feet 7½ inches, by 12 feet 9¼ inches.

Having given the exact dimension of the floor, or space which is to be laid with flag-stone, I shall leave it to the workman to form them of such a size, not less than a foot square, and of the same dimensions as he thinks will answer best, and accord most with the taste of the times.

I take it for granted that 7½ or 8d is the price of the white stone in the prepared state in which it was sent; and that the shipping charges, & freight only, are to be added to the cost. If a rough estimate of the latter had been mentioned, it would have been more pleasing; as I then could have prepared accordingly. I am at a loss to determine in what manner these dressed flags can be brought without incurring much expense, or being liable to great damage. To put them in cases will involve the first, and to stow them loose, the other may be sustained; unless great care is used in the storage, which is rarely to be met with among Sailors,—even in Masters of vessels.

If the flags are well dressed, a little matter will chip the edges, and break the corners, which, by disfiguring the work would be hurtful to the eye.

I will give no direction therefore on this head, your own judgment on the spot, must dictate; at the same time, I have but little doubt, if they are placed in the Hold of the Ship, with Hay and Straw to keep them from rubbing, of their coming without damage.

I will soon follow this letter with a remittance from hence, or a draught on Loudon for a sum to enable you to discharge the undertaker.

In the meanwhile, let me pray you to hasten the execution, and the shipping of them as my Gallery needs a floor very much.

With great esteem & regard

I am, Sir,

Your most ob^t Hble Serv^t

[Signed.] G^o WASHINGTON.

M^r JNO RUMNEY.

* This letter, it is apprehended, has either a false date or place where it was written. It is surmised 1785 is the proper year.

"*Tuesday June 27th 1786 * * ** Finding the hoe Harrow did not do good work in the drilled Corn I ordered it to desist and the Bar Share plow to be used, till the common corn was all crossed after which to use it when the ground was worked the other way.

"*Wednesday July 26th 1786 * * * * **
 * * * * * * * * * * * * * * * *

"Having fixed a Roller to the tale of my drill plow, and a brush harrow between it & the barrel, I sent it by G. A. Washington to Muddy hole and had the intervals between the corn which had been left for the purpose sowed with Turnips in drills and with which it was done very well."⁴¹

⁴¹ Throughout this summer, Washington had paid special attention to all the operations on his various plantations and to improving the implements of husbandry in use by his people. He, also, in a letter August 6th 1786, to Arthur Young, his English correspondent on improvements in agriculture, avails himself of the proffer of his services to fill an order for some seeds and two plows in the following words: "I will give you the trouble, Sir, of providing and sending to the care of Wakelin Welch, of London, merchant, the following articles. Two of the simplest and best constructed ploughs for land which is neither very heavy nor sandy; to be drawn by two horses; to have spare shares and coulters; and a mould, on which to form new irons, when the old ones are worn out, or will require repairing. I will take the liberty to observe, that some years ago, from a description or recommendation thereof, which I had somewhere met with, I sent to England for what was then called the Rotherham or patent plough; and, till it began to wear and was ruined by a bungling country smith, that no plough could have done better work, or appeared to have gone easier with two horses; but for want of a mould, which I neglected to order with the plough, it became useless, after the irons, which came with it were much worn."

In another letter to Mr. Young from Mount Vernon, November 1st, 1787, Washington says: "The grain Grass seeds, ploughs, &c, arrived at the same time agreeably to the list, but some of the former were injured, as will always be the case, by being put into the hold of the vessel; however upon the whole, they were in much better order than these things are generally found to be, when brought across the Atlantic.
 * * * * * * * * * * * * * * * *

"I have tried the ploughs which you sent me, and find that they answer the description which you gave of them; this is contrary to the opinion of almost every one who saw them before they were used; for it was thought their great weight would be an insuperable objection to their being drawn by two horses."

The Mount Vernon plantations were now all in good tilth, and Washington was picturing to himself the pleasure and comfort which he had long hoped to enjoy in their management, with time for studying the more scientific method of agriculture.

The question is often asked, "What is the elevation of the Mount Vernon Mansion-house above the level of the Potomac river?" I felicitate myself on being able to answer this inquiry from data ascertained by an actual leveling from the edge of the piazza opposite the centre door to high-water mark near the wharf, distant 660 feet, made by General Washington himself in 1786. The actual elevation of the pavement of the piazza above high-water mark, as ascertained by this survey, is 124 feet 10½ inches.⁴²

The home-life of Washington at Mount Vernon and his efforts to embellish it, which are told with such ingenuousness in his Diaries, almost compel further quotations:

"*Monday May 29th 1786*—About 9 o'clock Mr Tobias Lear, who had been previously engaged on a salary of 200 dollars, to live with me as a private secretary, and preceptor for Washington Custis, a year, came here from New Hampshire, at which place his friends reside.⁴³

"*Friday, June 16th 1786.* Began about 10 o'clock to put up the book-press in my study."

Washington's Diaries show numerous instances of his kindness to and consideration for his servants; visiting them when sick and, if seriously ill, bringing them to the home house to be nursed. Frequently he denominates them, as in the following extract, "my people," in giving them a day to visit the Races, one-third each day; at suitable seasons giving them a

⁴² The following receipt signed W^m Shaw, the clerk who preceded Mr. Lear in service at Mount Vernon, in the handwriting of General Washington, is preserved among his papers in the possession of Lawrence Washington:

"MOUNT VERNON, August 12th 1786 Received from G. Washington the sum of Fifty-six pounds two shilling, Virg^a Curr^y equal to £42.16 sterling in full for services rendered him as secretary &c from the 26th day of July 1785 when I came into the family, until the arrival of Mr Lear on the 29th day of May in the present year.

W^m SHAW

⁴² The following record, in Washington's handwriting, of the line of survey, with the several benches used in leveling from the centre door of the Mansion House at Mount Vernon to near the present steamboat wharf is preserved among the Washington papers in the Department of State, and of which the following is a literal transcript :

Fall, from the level of the Piazza to high water mark in a Rectangular course from the centre door.—

| No. | Length
of
Level. | FALL. | | | TOTAL FALL. | | | REMARKS. |
|-------------|------------------------|-------|-----|---------------|-------------|-----|---------------|---|
| | | Ft. | In. | $\frac{1}{8}$ | Ft. | In. | $\frac{1}{8}$ | |
| 1 | 12 | 2 | 4 | . | . | . | . | |
| 2 | do. | 9 | 1 | . | 3 | 1 | 1 | Beginning on the pavement of the Piazza,
at the edge thereof, next the Grass. |
| 3 | do. | 1 | 2 | . | 3 | 2 | 4 | |
| 4 | do. | 2 | 1 | . | 3 | 4 | 5 | |
| 5 | do. | 2 | 2 | . | 3 | 6 | 7 | |
| 6 | do. | 4 | 6 | . | 3 | 11 | 5 | |
| 7 | do. | 1 | 2 | 4 | 5 | 2 | 1 | |
| 8 | do. | 1 | 1 | 1 | 7 | 1 | 2 | |
| 9 | do. | 2 | 8 | 4 | 9 | 9 | 6 | |
| 10 | do. | 2 | 6 | 2 | 12 | 4 | 0 | |
| 11 | do. | 3 | 9 | 2 | 16 | 1 | 2 | |
| 12 | do. | 4 | 3 | 2 | 20 | 4 | 4 | |
| 13 | do. | 6 | 5 | 4 | 26 | 10 | 0 | To the level, at the foot of the low ^r step
at Gate which is 156 feet from the pave-
ment of the Piazza. |
| 14 | do. | 4 | 2 | 6 | 31 | 1 | 0 | |
| 15 | do. | 5 | 0 | 0 | 36 | 1 | 0 | |
| 16 | do. | 5 | 0 | 0 | 41 | 1 | 0 | |
| 17 | do. | 5 | 0 | 0 | 46 | 6 | 0 | |
| 18 | do. | 2 | 1 | 6 | 48 | 7 | 6 | To Post & Rail Fence—216 feet from the
Piazza. |
| 19 | do. | 3 | 7 | 4 | 52 | 3 | 2 | |
| 20 | do. | 2 | 6 | 4 | 54 | 9 | 6 | |
| 21 | do. | 2 | 3 | 6 | 57 | 1 | 2 | |
| 22 | do. | 2 | 11 | 4 | 60 | 0 | 6 | |
| 23 | do. | 2 | 3 | 2 | 62 | 4 | 0 | To a small locust—276 feet from the
Piazza. |
| 24 | do. | 2 | 3 | . | 64 | 7 | . | |
| 25 | do. | 2 | 3 | 2 | 66 | 10 | 2 | |
| 26 | do. | 2 | 2 | . | 67 | . | . | To a Bank—312 feet from the Piazza. |
| 27 | do. | 4 | 2 | 1 | 71 | 2 | 5 | |
| 28 | do. | 2 | 5 | . | 73 | 7 | 5 | To the level of the Spring—at the Dairy—
which is about 50 feet above high water
mark— |
| 29 | do. | 2 | 2 | . | 75 | 10 | 5 | |
| 30 | do. | 2 | 3 | 1 | 78 | 1 | 6 | |
| 31 | do. | 1 | 6 | 4 | 79 | 8 | 2 | |
| 32 | do. | 2 | 5 | 5 | 82 | 1 | 7 | |
| 33 | do. | 3 | 5 | 5 | 83 | 7 | 4 | |
| 34 | do. | 3 | 6 | 6 | 86 | 11 | 2 | |
| 35 | do. | 2 | 0 | 3 | 89 | 11 | 5 | |
| 36 | do. | 3 | 3 | 6 | 92 | 3 | 3 | |
| 37 | do. | 3 | 2 | 0 | 95 | 5 | 3 | |
| 38 | do. | 3 | 0 | 4 | 95 | 5 | 7 | |
| 39 | do. | 2 | 4 | 3 | 100 | 10 | 2 | |
| 40 | do. | 2 | 0 | 4 | 102 | 10 | 6 | |
| 41 | do. | 1 | 5 | 4 | 104 | 4 | 2 | To a parcel of Briers—492 feet from the
Piazza. |
| 42 | do. | 1 | 2 | . | 105 | 6 | 2 | |
| 43 | do. | 1 | — | 1 | 106 | 6 | 3 | |
| 44 | do. | — | — | — | 106 | 6 | 3 | |
| 45 | do. | — | 10 | . | 107 | 4 | 3 | |
| 46 | do. | 1 | 10 | . | 109 | 2 | 3 | |
| 47 | do. | 2 | 5 | 1 | 111 | 7 | 4 | |
| 48 | do. | — | 2 | . | 111 | 9 | 4 | |
| 49 | do. | — | 9 | 6 | 112 | 7 | . | |
| 50 | do. | — | 5 | 4 | 113 | 0 | 4 | To a path up the Riverside—600 feet from
the Piazza— |
| 51 | do. | — | 7 | 6 | 113 | 8 | 2 | |
| 52 | do. | — | 9 | 2 | 114 | 5 | 4 | |
| 53 | do. | 1 | — | 4 | 115 | 6 | . | |
| 54 | do. | 1 | 1 | . | 116 | 7 | . | To the edge of the River Bank—648 ft
from the Piazza— |
| 55 | do. | 3 | 6 | 4 | 120 | 1 | 4 | To highwaterMark—660 ft. from the Piazza |
| High Water. | | 4 | 9 | . | 124 | 10 | 4 | |

The distance in a rectangular line from the level of the pavement of the Piazza, to high water mark, is 660 feet—or 220 yards—and the elevation of it above the water is 124 ft. 10½ Inches.—

day's sport and lending them his seine to haul for fish, to do with their catch as they pleased, to sell or to keep.⁴⁴

"Monday October 9th 1786 * * * * * * * * *
Allowed all my People to go to the Races in Alexandria on one of three days as best comported with their respective businesses—leaving careful persons on the plantations."

Washington had faith in the progress of the human race and believed in making earnest efforts to improve not only man's surroundings and conditions, but also his methods of securing a livelihood, as well as the institutions and government under which they lived. To him is awarded the credit of the introducing into the United States the best breeds of that very useful animal, the mule. He also gave much attention to improving the breeds of sheep, hogs, horses, cattle and dogs.⁴⁵ The following extracts from his Journal relate to his importation of improved breeds of some domestic animals for his plantations.

⁴⁴ Washington, at the time of his death, had on his several estates 317 negroes, a list of which, with the names, ages, and sex, he had made a short time before. A literal copy of this memoranda has been deposited in the "Toner Collection" in the Library of Congress. He owned of these, in his own right, 124, and had 40 others leased from Mrs. French; while 153 were dower negroes, that is, were the property of Mrs. Washington in her own right and that of her children and their heirs. Washington in his will, after providing for the payment of his debts and for his wife, and before disposing of any of his property, directs in the following language the emancipation of his negroes: "Item Upon the decease of my wife, it is my will and desire, that all the slaves which I hold in my *own right* shall receive their freedom."—Then follows express provisions for the care of the old who were past work and the children unable to make a living, but as the will has been frequently printed, it can be consulted by all desiring to do so.

⁴⁵ Washington was but little given to collecting about him a museum of things which were simply curious and without the merit of some use. He did, however, have some fancy fowls and unprofitable animals which were in the nature of the decorative and to entertain visitors. His deer Paddock and hounds he doubtless justified on the principle of entertainment and home amusements. His cash book for 1785, under date of March 17th, has the following: "by freight of a swan and 4 Geese from Nom'y 18/-." And his cash book for 1788, December 13th, has this entry: "By Capt. Baine p'd him the freight of two Chinese pigs & 2 Geese from Norfolk to this place 7/4."

" Thursday Nov^r. 16th 1786 * * * * * * * * * * * *
* * On my return home, found Mons Campoint sent by the
Marq^s de la Fayette with the Jacks and two she Asses which
he had procured for me in the Island of Malta, and which had
arrived at Baltimore with the Chinese Pheasants &c had with
my Overseer &c got there before me—these Asses are in good
order and appear to be very fine—The Jack is two years old
and the She Asses one three & the other two.—The Pheasants
and Partridges will come round by Water.

"Monday 27th Nov. * * * * * * * * * * Received my Chinese Pheasants &c from Baltimore by the
Packet viz.—A Cock & Hen of the Golden Pheast! A Cock &
Hen of the silver Pheast! A Cock & two hens of the French
Pheast! and a French Partridge the other French Partridge
died coming round from Baltimore."

The expedient adopted by Washington in sowing clover, timothy and other small seeds broadcast to insure an even distribution of the seed over the ground, was to mix them with dry sand or ashes, so that greater bulk might be taken in the hand for each cast. The following entry appears under date of

"Monday, Febr^y 5th 1787. At the Ferry the Overseer had begun to sow timothy seed mixed with sand in' the Rye field on the snow,—but the sand being too wet and Clamy to do it regular I ordered him to desist until the sand could be dried.—Three gallons of Timothy seed mixed with ashes was sown on Rye in the Neck on Saturday.

"April 1st 1787 * * * * * In the evening one Young who lives on Col^o Ball's place—a farmer, came here to see, he says my drill plow & staid all night.⁴⁶

⁴⁶ The Mount Vernon "Store Room Book" of this date shows the following entries bearing upon the making of Drill Plows:

"April 16th 1787 Gave out 200 4^d & 100 8^d brads to Matthew for making a drill Plow.

"April 13, 1787. " Gave out a piece of Copper Sheeting to Bradkin for the Drill plow,
also 50 $\frac{4}{d}$ nails to Bradkin 50 tacks and 100 $\frac{4}{d}$ brass Do for Drill Plow."

Tradition credits Washington with having invented and patented a plow. I have not, however, found any testimony to sustain the claim. But I do find the following entry in one of the "Store Books of issue" at Mount Vernon under date of Sept 28th 1787. "A packing box for a plow model one hundred and fifty nails used in making box." Query: Was the model here referred to one of Washington's own invention and being shipped to a manufacturer or to officials granting patents?

"Saturday 7th * * * * * In my Botanical garden in the section immediately adjoining to & west of the Salt House I sowed first 3 rows of the Kentucke clover 15 inches apart—and next to these 9 rows of the Guinea grass in rows of the same distance apart.

"April 20th * * * * * In the Neck the gr^d being rather hard and in places rough—two harrows could not prepare it sufficiently to keep the drill plow constantly at work. I therefore ordered the plowman who attended it to make good the work of covering the corn which the little harrow at the tail of it might leave unfinished and this he is well able to do, because where the ground is difficult to prepare he can outgo the harrows, and here it is assistance is wanted when the ground is light and the harrows prepare it sufficiently there is no occasion of the hoe to follow—this supercedes the necessity of the special hand ordered for this service on Wednesday last.—Where the gr^d is naturally light, or well pulverized the drill plow plants with great dispatch regularity and to good effect where it is rough and hard manual labour as in the common mode must be applied."

The spirit of enquiry and desire for exact knowledge remained an active element in Washington's character to the close of his life,⁴⁷ but it is nevertheless wonderful that as late as 1788 he

47 While George Washington was a member of the House of Burgesses, a petition of Mr. Aaron Miller addressed to the Governor and Council was referred to the House, "setting forth that he had at great trouble and expense invented a new compass and protractor, by which an angle may be measured both in surveying and platting with greater Accuracy than by any other instrument hitherto discovered and praying such Bounty as the Legislature may think he deserves and the said petition was read. Ordered that the said Petition be referred to the consideration of Mr. Richard Bland, Mr. Richard Henry Lee, Mr. Wythe, Mr. Carey and Mr. Mercer; that they examine into the allegations thereof, and report the same with their opinion thereon, to the House." (*Journal House of Burgesses, Decbr 6th, 1761*) "Mr. Richard Henry Lee from the Committee to whom was referred the Petition of Aaron Miller, reported that they had examined the Instruments mentioned in the said petition and were of opinion that surveys of Land may be made and plotted with them with greater accuracy than any instruments of the kind they had ever seen or heard of * * * * * Resolved, that the said Aaron Miller ought to be allowed the sum of £30. as a consideration for his useful invention." (*Journal House of Burgesses, December 15th, 1764*)

should take the pains to count the actual number of peas and beans there were in a pint measure of six varieties of them, that he might know the quantity of ground to prepare and the number of hills a bushel of each would plant, as will be noticed from the following taken from his Diaries :—

*"Monday May 12th 1788 * * At home all day.—Counted the number of the following articles which are contained in a pint—viz.—of The small & round pease commonly called Gentlemen's Pease 3,144. Those bro^t from York Riv^r by Maj^t G. Washington 2,268. Those bro^t by D^o from M^{rs} Dangerfields 1,375. Those given by Hez^l Fairfax 1,330. Large and early black eye Pease 1,186. Bunch hominy Beans 1,473. Accordingly—a bushel of the above, allowing 5 to a hill will plant the number of hills w^{ch} follow.—viz*

| | | | | | | | |
|------------------------|---|---|---|---|---|---|---------|
| “ 1 st kind | - | - | - | - | - | - | 40243 |
| 2 Ditto | - | - | - | - | - | - | 29030 |
| 3—Ditto | - | - | - | - | - | - | 17200 |
| 4—Ditto | - | - | - | - | - | - | 17024 |
| 5. Ditto | - | - | - | - | - | - | 15180 |
| 6. Ditto | - | - | - | - | - | - | 18854 ” |

Another inventor was rewarded by Virginia while Washington was a member of the Assembly for an improvement in the threshing machine. John Hobday of Gloucester county, Va., in 1774 by petition brought to the attention of the House the fact that “he had invented a Machine for getting Wheat out of the Ear clean and neat and with more expedition than could be done by thrashing, or treading with cattle, and that without loss of the chaff, or detriment to the straw ; and submitting it to the Liberality and Wisdom of the House to reward his endeavors to serve the community, in such manner as they may think proper. *Resolved* that the said Petition be referred to the consideration of the Committee of Trade ; and that they do examine the matter thereof and report the same, with their opinion thereupon to the House.” (*Journal of House of Burgesses, May 19th, 1774.*) May 20th, 1774, Mr. [Benjamin] Harrison reported from the Committee of Trade, to whom the petition of John Hobday, praying to be allowed a reward for inventing a machine whereby wheat is got out neat and clean, &c. * * * * *

“ Resolved that it is the Opinion of this Committee that the petition is reasonable and that the said John Hobday ought to be allowed by the Public the sum of three hundred pounds as a reward for inventing the said Machine, and communicating to the Public the manner of erecting it.”

The resolution was amended by inserting one hundred instead of three hundred, and it passed in the affirmative. Washington was a competent judge of the utility of both these inventions.

He also counted the number of clover, timothy and Saint Foin seed there was in a pint that he might estimate the quantity to sow upon an acre.

During the session of the Convention that drafted the Constitution of the United States, Washington kept a brief journal of events, but records nothing regarding the questions discussed in the sessions; thus evincing scrupulous adherence to his pledge of secrecy. The entries show, however, that he visited numerous institutions of learning, Bartram's botanical gardens, and the most noted farms in the vicinity of Philadelphia. His most lengthy notes, however, relate to agriculture, in which he never lost interest.⁴⁸ However, on Monday, 3d of September, 1787, his Diary has the following entry relating to a new machine:—

"Visited a Machine at Doct^r Franklins (called a Mangle) for pressing, in place of Ironing, clothes from the wash—which Machine from the facility with which it dispatches business is well calculated for Table cloths & such articles as have not pleats & irregular foldings and would be very useful in all large families."

It is probable that the activities of Washington's inventive genius found its favorite employment in the direction of labor-saving implements which ensured increased domestic comforts to the people. Yet his great catholic heart and enlightened humane sympathies led him to welcome and encourage every

⁴⁸ Washington in a letter to Landon Carter, "of Cleve," written at Mount Vernon 17 October, 1796, uses the following language:

"It is true (as you have heard) that to be a cultivator of Land has been my favorite amusement:—but it is equally true that I have made very little proficiency in acquiring knowledge either in the principals or practice of Husbandry. My employments through life, have been so diversified—my absences from home have been so frequent, and so long at a time, as to have prevented me from bestowing the attention, and from making the experiments which are necessary to establish facts in the Science of Agriculture.—And now, though I may amuse myself in that way for the short time I may remain on this theatre, it is too late in the day for me to commence a scientific course of experiments. Your thoughts on the mode of cultivating Indian corn, appear to me, to be founded in reason,—and a judicious management of the Soil for different purposes, is as highly interesting too, as it has been neglected by the People of this country. * * * *

"I shall always feel myself obliged by your communicating any useful discovery in Agriculture; and for the favorable Sentiments you have been pleased to express for me, I pray you to accept the thanks of

"Sir
"Your most obed^t and very H^ble servt
"G^o WASHINGTON."

measure which gave promise of lessening the heavy load resting upon the shoulders of the poor and the overworked and poorly-paid tillers of the soil. Intimately blended with his genius for leadership and for improving man's condition, was his taste and respect for the esthetics to be observed in every-day life which he believed not only improved habits but elevated character. This at times may have led some to consider him as reserved and overfond of ceremony. This was not the fact. But to a mind like his, attuned to exact justice, individual rights and the orderly observance of the proprieties of social life were sacred.

To President Washington we are indebted for the graceful and convenient device of the dinner wine coaster. The history of its invention and first introduction may be found in a footnote.⁴⁹ The harvest horse-rake for gleaning meadows and also

49 Mr. Lossing in his admirable book on "Mount Vernon and its Associations," page 263, gives in substance the following history of this invention. The President on the removal of Congress from New York to Philadelphia furnished his residence in a manner to make it comfortable to the close of his term of office, and to do this added much new furniture and household belongings. In his efforts in this direction he ordered a bill of goods through Gouverneur Morris, who was then in Paris. In this order was some silver-plated wine coolers, an article that he had never used at Mount Vernon. The invoice had reached him in Virginia. In a letter to his secretary, Mr. Lear, Washington wrote, I quote from Mr. Lossing :

" Enclosed I send you a letter from Mr. Gouverneur Morris, with a bill of the cost of the articles he was to send me. The prices of the plated ware exceed—far exceed—the utmost bounds of my calculation; but as I am persuaded he has done what he conceived right, I am satisfied, and request you to make immediate payment to Mr. Constable if you can raise the means. As the coolers are designed for warm weather, and will be, I presume, useless in cold, or in that in which the liquors do not require cooling, querie, would not a stand like that for castors, with four apertures for so many different kinds of liquors, each aperture just sufficient to hold one of the cut decanters sent by Mr. Morris, be more convenient for passing the bottles from one to another, than the handing each bottle separately, by which it often happens that one bottle moves, another stops, and all are in confusion? Two of them—one for each end of the table, with a flat bottom, with or without feet, open at the sides, but with a raised rim, as caster-stands have, and an upright, by way of handle, in the middle—could not cost a great deal, even if made wholly of silver. Talk to a silversmith, and ascertain the cost, and whether they could be immediately made if required, in a handsome fashion.

" Perhaps the coolers sent by Mr. Morris may afford ideas of taste; perhaps, too (if they prove not too heavy, when examined) they may supersede the necessity of such as I have described, by answering the purpose themselves. Four double flint bottles (such as I suspect Mr. Morris has sent), will weigh, I conjecture, four pounds; the wine in them when they are filled will be eight pounds more, which, added to the weight of the coolers, will

grain fields after the grain had been cut and gathered came into use about the time General Washington was President. He ordered two for his Mount Vernon farms. (*See letter to C. Biddle.*) And in 1797 he had a thrashing-machine erected at Mount Vernon. (*See cash book.*)

Under date of August 2d, 1788, we find the following:—"Visited all the Plantations—At the Ferry—six plows were turning in B [uck] Wheat Three of them from Frenches—Tried the Patent Plow sent me by Major Snowden whch run easy and did good work."

It would seem from this that there were plows patented and in use in Virginia before the assembling of the First Congress under the Constitution of the United States. This paragraph bears testimony also to the fact that Washington was known to merchants and progressive farmers as being ready and anxious to test new and improved implements of husbandry; hence, no diplomacy was necessary to bring to his attention a new patent plow.⁵⁰

"*Sunday November 2d 1788.* M^r George Mason came here to dinner and returned in the Evening—After dinner word was brot from Alexandria that the Minister of France was arrived thiere and intended down here to dinner—Accordingly, a little before Sun setting, he (the Count de Moustiers) his Sister the

I fear, make these latter too unwieldy to pass, especially by ladies which induces me to think of the frame in the form of casters."

After quoting the President's letter descriptive of the device, Mr. Lossing adds the following:

"Mr. Lear was pleased with Washington's suggestions and ordered a silversmith to make two of the caster-like frames of solid silver, and these were used upon the President's table on the occasion of the first dinner which he gave to the officers of the government and their families, foreign ministers and their families and other distinguished guests. Their lightness and convenience commended them, and from that time they became fashionable, under the appropriate title of coasters. Thenceforth the wine-cooler was left upon the sideboard and the coaster alone was used for sending the wine around the table. For more than a quarter of a century afterward the coaster might be seen upon the table of every fashionable family in Philadelphia. Few persons, however, are aware that Washington was the inventor of it. A roller was placed under the center of each basket by which the coaster is more easily sent around the table."

An engraving showing a specimen of each of the wine coolers and the coaster may be seen in the work of Lossing referred to.

⁵⁰Prior to the Federal union under the Constitution, patents were granted by the Assemblies of the several Colonies, as well as by Parliament.

Marchioness de Breton⁵¹—the Marquis her Son and M^r du Ponts came in.

“Monday 3^d Thermometer at 50 in the Morning—70 at Noon—and 70 at Night.—A thick fog until 8 or 9 o’clock—Clear, Calm & exceedingly pleasant afterwards.—

“Remained at home all day.—Col^o Fitzgerald & Doct^r Craik came down to dinner—& with the copy of an address (which the Citizens of Alexandria meant to present to the Minister) waited on him to know when he would receive it.

“Mr. Lear went to Alexandria to invite some of the Gentlemen and Ladies of the Town to dine with the Count & Marchioness here tomorrow.

“Tuesday—the—fourth. Thermometer at 58 in the Morning—75 at Noon—and 72 at Night.—Morning clear, calm and very pleasant.—as the weather continued to be thro’ the day.

“M^r Herbert & his Lady, M^r Potts & his Lady, M^r Ludwell Lee & his Lady, and Miss Naucy Craik came here to dinner and returned afterwards.

“Wednesday 5th Thermometer 63 in the morning—75 at Noon and 73 at Night, very clear, calm, warm and pleasant all day.

“The Minister & Madam de Bretan expressing a desire to walk to the new Barn—we accordingly did so—and from thence through Frenches Plantation to my Mill and from thence home compleating a tour of at least seven miles.—Previous to this, in the morning before breakfast I rid to the Ferry, Frenches D[ogue] Run and Muddy hole Plantations.

“At the Ferry some of the People were clearing up the Rye which had been tread out the day before, others were digging Potatoes—the Plows were at work in No. 5.—

⁵¹ Marchioness de Brienne was an enthusiastic admirer of America, a writer of spirit and an amateur artist of considerable skill. While at Mount Vernon she painted a miniature of the General from life which she presented to Mrs. Washington, making a duplicate for herself. (*See Portraits of Washington by Miss E. B. Johnston.*) The General in his Diary of October 3^d, 1790, says: “Walked in the afternoon and sat about two Oclock for Madam Brehan [Brienne] to complete a miniature profile of me which she had begun from memory and which she had made exceedingly like the original.”

"At Frenches the People were preparing the yard to tread out Oats which had remained in Shocks at the yard.—At Dogue Run—some hands were Clearing up Rye, and preparing to lay down a bed of Wh^t —and others digging Cellar to store Irish Potatoes in.—The Plows yesterday & this day being stopped to tread out grain.—At Dogue Run—The people were Raising Mud for Manure—the Rye would be all in and covered to day—

"*Thursday 6th* Thermometer 63 in the morning—73 at Noon and 72 at Night. Clear calm, warm, and exceedingly pleasant.

"About Nine Oclock the Minister of France, the Marchioness de Bretan and their suit left this on their return for New York. I accompanied them as far as Alexandria & returned home to dinner,—the minister proceeded to Georgetown after having received an Address from the Citizens of the Corporation.

"In the afternoon M^r Ferdinand Fairfax came in and stayed all Night."

In his Diary January 22d, 1790, will be found the following entry : "Called in my ride on the Baron de Poelnitz to see the operation of his (Winlow's) thrashing machine. The effect was the heads of the wheat being seperated from the straw, as much of the first was run through the mill in 15 minutes as made half a bushel of clean wheat. Allowing working hours in the 24, this would yield 16 bushels per day. Two boys are sufficient to turn the wheel, feed the mill and remove the thrashed grain after it has passed through it. Two men were unable by winnowing, to clear the wheat as it passed through the mill, but a common Dutch fan, with the usual attendance would be more than sufficient to do it. The grain passed through without bruising and is well seperated from the chaff. Women and boys of 12 and 14 years of age are fully adequate to the management of the mill or thrashing machine."

From intimations in letters and other parts of the journal it is almost certain the President sent one of these thrashers to his Mount Vernon Plantations.

It would be easy to multiply examples of General Washington's hospitality to distinguished visitors as well as experiments to promote agriculture and to devise better methods and

implements than were then in use in agriculture and the domestic arts, but I have exhausted the time at my disposal and, I fear, your patience ; besides which I think enough evidence has been adduced to make it apparent that the mind of Washington was pre-eminently efficient in devising expedients and all the essential machinery to accomplish in the shortest time and in the best manner, his purposes whether in the management of a farm, the command of an army, or the inauguration of a new form of Government and the administration of the affairs of a nation.

The parentage, the disciplined mind, the associations and the pursuits of Washington, from his cradle to his grave, were all so admirable as to fully satisfy the most exacting requirements of the highest standard of excellence in human character ; and each gives assurance that he was pre-eminently deserving of the admiration of mankind above that of any mortal who has ever lived.⁵² Each act of his eventful life, the purer grows as studied, freed from the passions of the times in which he lived. Is it not lamentable, then, and to be deeply regretted that the name of George Washington, the central figure in all history, is not held as too sacred to be mentioned except with reverential praise ? He should, at least, be exempt from coarse and incosiderate gibes and pert, unsavory innuendoes having no foundation except in the depraved imagination of the vulgar, incapable of appreciating the virtues they profane.⁵³

⁵² A delicate and appreciative mark of respect to the memory of Washington is "the tolling of the bell" by all vessels passing Mount Vernon. This special manifestation of regard, I learn, originated with a French merchant vessel passing just after General Washington's death and before the interment of his remains. The barque placed its colors at half-mast and tolled its bell while passing the home of Washington, then a house of mourning. This unique but impressive testimony of respect seemed to all sea-faring men so appropriate that it was at once taken up by crafts of every character on the Potomac, and has been continued, without abatement, to this day.

⁵³ The Hon. George Bancroft, our most eminent student of American history, has left us a comprehensive and just analysis of the character of the Father of our Republic, based upon a study of his life and times, such as but few writers are capable of giving to the subject. He says :

Mount Vernon must ever have a peculiar fascination to the lovers of civil liberty, to all who admire genius and have faith in human progress. To climb its hills, traverse its walks and pass the portals which sheltered the man who amplified and fashioned this Mansion, planned its gardens, fields and lawns and embellished all with choicest trees and flowering shrubs, seems now and ever will in some mysterious way to bring the appreciative visitor near the great Washington. For it was here the youthful surveyor, the courageous explorer, the commander of armies, the presiding officer of conventions and the first President of the United States, pursued his favorite employment of cultivating the soil. Here, the purest patriot of all the ages occupied his splendid talents and kept his heart in sympathy with the latest improvements in everything which tended to advance the happiness of the people and his country. Here lived and labored the most felicitous letter-writer in history, the greatest exponent of liberty guided by law, the defender of the inalienable rights of man, the possessor of all the virtues. The vitality of the *Pater Patriæ* seems sentient and perpetual here—the patriot's Mecca—once the home, now the tomb of the Immortal Washington!

"The character of Washington's greatness may be described, in its unity, as the highest wisdom of common sense ; that is to say, the largest endowment of the power that constitutes the highest part of the nature of man ; or, it may be described as in action the perfection of reflective judgment. That common sense or reflective judgment, was combined with creative and executive capacity. If he spoke, or if he wrote, he came directly to the point on which the matter in discussion depended ; and pronounced his thoughts in clear, strong and concise words ; if he was to act he suited his means, be they scanty or sufficient in the best way to his end. When America assembled its best men in a first Congress, Patrick Henry said : 'For sound judgment Colonel Washington is unquestionably the greatest man on the floor.'"

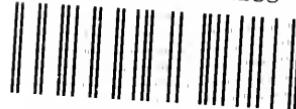
The following appreciative estimate of Washington's character is from the pen of that astute French statesman, Talleyrand :

"History affords few examples of such renown. Great from the outset of his career, patriotic before his country became a nation, despite the passions and political resentments that desired to check his career, his fame remained imperishable. His public actions, and unassuming grandeur in private life were living examples of courage, wisdom and usefulness."

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